





CONVERSATIONS

ON

THE PRINCIPAL SUBJECTS

OF

POLITICAL ECONOMY.

BY

WILLIAM ELDER,

AUTHOR OF "QUESTIONS OF THE DAY, ECONOMIC AND SOCIAL."

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Dedicated

—WOULD IT WERE WORTHIER—

To the Memory

OF

ALEXANDER HAMILTON,

HENRY C. CAREY,

STEPHEN COLWELL:

THE POLITICAL ECONOMISTS

OF

THE NEW WORLD

FOR

THE NEW TIME.

P R E F A C E.

THIS book is not intended for occasional reference, and I have equipped it with an index raisonné, and not with a verbal index. The matters treated in it would afford a very much longer list of items, but I would have the reader to be a student of the matters presented and discussed. A distinguished jurist of Pennsylvania, when he was a student, it is said, tore the indexes out of his copy of the Supreme Court Reports, and it is believed that he was all the better acquainted with the contents of the books. He intended to be a lawyer, not a case lawyer. He took notice, not notes, charging his judgment and memory, instead of a note-book, with the matter of his studies.

A complete index to the topics herein treated would fill forty or fifty pages, although the text covers but three hundred.

I think that the work itself will not be hard to read or understand.

WASHINGTON, April 15, 1882.

CONTENTS.

	PAGE
CHAPTER I.	
POLITICAL ECONOMY	9
CHAPTER II.	
WEALTH	18
CHAPTER III.	
THE GROWTH OF WEALTH—ITS AGENCIES	23
CHAPTER IV.	
MAN AND LAND—OCCUPATION OF THE EARTH	27
CHAPTER V.	
THE LAW OF MIGRATION AND OCCUPATION OF THE EARTH BY THE HUMAN RACE	31
CHAPTER VI.	
RENT	49
CHAPTER VII.	
COMMERCE AND TRADE—SOURCES OF WEALTH	64
Domestic Commerce as a Source of Wealth	66
Improvement in Travel and Transportation, a Source of Growing Wealth	70
CHAPTER VIII.	
SUBSTITUTION	72
First, from the Animal to the Vegetable Kingdom	77
Second, from the Animal and Vegetable to the Mineral Kingdom	77
Third, from Animals, Vegetables, and Minerals, to the Imponder- ables	78
From Inferior to Better of the same kind	78
CHAPTER IX.	
POPULATION	80
CHAPTER X.	
WAGES, PROFITS, AND INTEREST	93

	PAGE
CHAPTER XI.	
MONEY	115
CHAPTER XII.	
FUNCTIONS OF MONEY	121
CHAPTER XIII.	
MONEY AND PRICES	124
CHAPTER XIV.	
STANDARDS—GOLD OR SILVER, OR BOTH	134
CHAPTER XV.	
MONEY, A PRODUCER OF VALUES	146
CHAPTER XVI.	
MONEY OF ACCOUNT	149
CHAPTER XVII.	
CREDIT MONEY	153
CHAPTER XVIII.	
BANKING	163
Banks of Issue	171
Bank of Genoa	179
Bank of Amsterdam	186
Bank of Hamburg	192
Bank of England	194
American Bank Experiences	208
Our National Banking System	212
Bank of France	221
CHAPTER XIX.	
INTERNATIONAL TRADE	242
CHAPTER XX.	
CLOSE OF THE DEBATE	298
APPENDIX A.	
PROPORTION OF BANK CHECKS, BANK NOTES, BILLS, DRAFTS, AND COIN, RESPECTIVELY IN THE BANKING BUSINESS OF ENGLAND AND THE UNITED STATES	301
INDEX RAISONNÉ	305

CONVERSATIONS
ON THE
PRINCIPAL SUBJECTS OF POLITICAL ECONOMY.

<i>T.</i> TEACHER,	}	DRAMATIS PERSONÆ.
<i>P.</i> PUPIL,		
<i>D.</i> DISPUTANT,		

CHAPTER I.

POLITICAL ECONOMY.

P. What is Political Economy?

T. The answer to that question, which happens to be a dozen questions in one, should be made in the drift of thought of the questioner. Let me try whether I can find your aim; first, negatively: It is not Theology, though it is concerned with the providential government which overrules the earthly fortunes of men. It is not Jurisprudence, though it does in its inquiries involve provisions for the peace and good order of society. It is not Politics, or the science of civil legislation, though it must be considered and have place in political constitutions and in their administration.

Affirmatively: Political Economy is primarily occupied with the laws, natural and social, which govern in the production and distribution of wealth in material things, with a constant outlook to the general welfare of society, so far as that welfare depends upon the necessities, comforts, and luxuries of physical life.

P. You said that my question is in fact a dozen questions in one. How can that be?

T. There are so many disputes among the authorities about the range of the system, its proper subjects, the kind of data and

of reasoning on which it should be based, or which it legitimately employs, that you would be in danger of getting a dozen different answers, and might, in the confusion of definitions, fail to clearly understand any one of them. One party, following J. Stuart Mill, holds that Political Economy is a deductive science, drawn from assumptions, or first principles; another, after the school of Ricardo, that it is an inductive science, built upon elementary facts; another, among whom are August Comte, Stephen Colwell, Daniel Webster, and Napoleon Bonaparte, denies its pretension to be a science in any proper sense of the word, holding that at least it is only a system or assemblage of truths, which have no central or overruling law or principle. And when you come to hear them in the definition of the terms of art which they all alike use, you find them equivocal, contradictory, and uncertain in the inferences deduced from them.

D. I thought that the principles of the science were so far certain and settled as to be sure directories in study, and even in legislative policy. Did not Adam Smith, the father of the science, give it exactitude and completeness? Did not J. B. Say give it a symmetrical exposition and happy elucidation? Does not John Stuart Mill follow in substantial accordance with the text of the great leader? And can it be possible that the generally prevalent faith is without any sort of Scripture authority?

T. All these authorities, and all other of the principal followers of Smith, agree that he did not attempt or intend the revelation of a Koran of economic faith. J. B. Say, the interpreter of *The Wealth of Nations*, who gave it the shape in which it has been used, says of it: "The work can only be considered as an immethodical assemblage of the soundest principles of political economy; an irregular mass of curious and original speculations, and of known demonstrated truths." J. R. McCulloch, who wrote a commentary upon the work as close as that usually given to the Bible, contradicts his author in at least a hundred particulars. J. S. Mill says, "The work is in many parts obsolete, and in all imperfect." In fact, a sufficient acquaintance with the history of Smith's school shows that his followers have completely overlaid him, and left nothing of him but a name to live. Moreover, they have agreed upon no substitute or amended system. Daniel Web-

ster* said of Smith and his followers, "If I were to pick out with one hand all the mere truisms, and with the other all the doubtful propositions, little would be left." And Napoleon Bonaparte, who forbade the publication of J. B. Say's exposition of the Smith system, shortly declared that "if an empire were made of adamant, the political economists would grind it to powder."

Now, while I would free you from looking to the authorities of our college text-books, and relieve you from mustering in squads of partisans, I do not intend to foster the conceit of free and independent thought while I invite it to do its own work, because I think that it is not all which a man swallows that makes him fat, but only that which he assimilates and incorporates, and makes his own. Tacit assent is not confirmation, and one's knowledge is just what he himself knows.

D. Those opinions of yours seem to me to dispose of the study of political economy at the outset of the race, and spares its doctrinal run.

T. You are right, if the whole question in our proposed inquiry were which of the contestants is entitled to the stakes in the issue of a strife of speculation; but, please to understand me, that while political economy is not and cannot be a science, as astronomy, chemistry, anatomy, and music; and yet it may be, or in the end may become, a system, explanatory and directory in the conduct of societary and business affairs; and as such is as worthy of study as any of the abstract, the universal, and the invariable, which is justly entitled to the distinctive name of science. Is not remedial medicine as worthy of study; and are not its discoveries and instruction as important to health as if the frame and constitution of man were a piece of clockwork, and as obedient in all its movements and aberrations to mathematical rules? Consider, sir, the business of political economy is to deal with, redress, and direct the condition and conduct of communities, in conformity with the forces which rule their affairs; and we are even more immediately concerned with the laws at work in it than with the absolute and unchangeable movements of the stars in their courses, whose opera-

* Webster's judgment of the popular authors was delivered in 1830, before the publications of our American writers, Carey, List, and Colwell. It applied equally to Adam Smith, Ricardo, Say, Malthus, and McCulloch.

tions we cannot control by any knowledge of them that we can obtain. The disorders of the social system are capable of remedy, and are the subjects of our agency. Wait a little, and you will see that some useful thinking may be done among the proper topics of political economy without exaggerating its province and jurisdiction.

D. It seems to me that quackery rests exclusively upon experience, which is liable to all sorts of misinterpretation; while principles, rightfully, direct practice, and, I thought, science is the only safe guide of opinion.

T. Quackery and empiricism! Do you recollect that the Baconian philosophy, otherwise called the inductive system, rests upon observation and experiment, and that it builds all its generalizations, which it calls laws, upon facts as they happen to be understood, arranged, or clustered in kinds, and upon the general or governing principles more or less correctly educed? The inductive system of reasoning, which has conquered the physical world, so far as it has gone in its triumphs, is simply and purely empiricism. A law or principle, according to the inductive system, is nothing but a general fact pervading the series or group under investigation, and is true only when *all* the facts of the group are known and justly valued. The facts of social operation are exceedingly complex and difficult of estimation. The principle of liberty intervenes, and makes them inconstant. There can, therefore, be no science of their phenomena. Yet, to think is to theorize; and, within the strict limits of social phenomena, we may reason safely. Observing the proper limit of speculation, principles, restrained to their subjects, may be ascertained. So let us try to understand economic agencies as they severally work in the life and history of men and societies. What do we need to know except their forces in action? This is all the knowledge that science has acquired of the lever, the screw, and the compound pulley. The use and the government of these machines, not the power, in its essence, are within our comprehension.

P. You mean, I suppose, to consider the actual matters and things which enter into the life of individuals and communities; and, to let general principles or deductions take care of themselves, after the cautious way that scientists treat what they call

empirical LAWS, waiting for all the facts which shall afford a sure generalization.

T. Not exactly that, and nothing more than observation and experiment afford of phenomena ; but all that we can know by experience, and, along with that, all the light which assured final causes reflect upon processes that have an obvious tendency in the designs of Providence.

D. Now you are mixing up morals and religion, creed and prophecy, with the certainties of fact, whose explanation, according to the inductive philosophy, should be found in themselves. Is this logical ? Is not the investigation of every branch of human knowledge distinct, and must it not be restrained within its special province ? Can speculative faith and assumed design be safely mixed in the search for the truths of science ?

T. Preaching and practice, heaven and earth, morals and trade, are sometimes, and only too often, separated, and all the worse for the divorce in opinion and conduct. If man has a compound nature, and various and even conflicting impulses, can he be understood, and the interactive phenomena in harmonious results be explained by any one simple, single, and disintegrated department of his functions ? If morals effectively mix themselves with merchandise ; if genius, which draws the known from the unknown by the *a priori* route of reasoning, is efficient even in mechanics, can you strip the body of business of its soul and spirit, separate the mortal from his immortality, and divorce his drift of daily life from his destiny, his self from the relations which ever modify the interests and actions of that self, and thus make of his animal, moral, and social appetencies, each a distinct and independent piece of machinery ? If man were only an inorganic clod of earth, you might investigate him in a chemical laboratory ; but in that complexity of his constitution, which makes him a universe in miniature, he must be studied in the assemblage of his functions, in order to understand him in his social relations.

D. Would you let the fatalism of Mahometanism, the fantastic and blind servility to nature of Paganism, or even the speculative faith of Christianity, solve the problems of our earthly existence, and direct conduct in the world of terrestrial affairs ?

T. No ; keep the several branches of inquiry to their obviously

proper subjects and methods of research, and for that very reason allow them all their respective forces in every case in which they are concerned, and in which they modify each other, and so affect the result of their combined activities. Chemistry, confined to its method and means of analysis, would make sad work in the theory of digestion. It can obtain the atomic constitution of the aliment and of the gastric solvent, but without the vital forces concerned, of which it knows nothing, what report can it make of the change of food into chyle, and of chyle into blood, and of blood into bone, nerve, and muscle? What we want in economic affairs is the nutriment, the blood, the bone, and muscle of business, and therefore take the composite man, the society man, for our subject in his entirety.

I think that political economy, to be good for anything, is bound to explore the offices of the producer, the exchanger, and the consumer of the commodities which constitute wealth in material things; and that it ought to derive thence useful instruction for the statesman, the moralist, and the religionist. I have seen the fragmentary man of your notion in a brickbat, in a worm, in a monkey, but I never saw the complex man himself so severed into his constituents; and I do not propose to consider him either as a couple of buckets of water, with certain grains of salts in solution, or as a ground hog, or honey bee, or beast of prey, or any other animal; but as a man, a being of higher functions and destiny than anything created for his use.

D. If all my objections, even when they represent the very highest accepted authorities in the science, provoke so much preaching, I consent to waive them occasionally, that we may the sooner get at the substantive matters to be considered.

T. Truths of the highest rank must have some use, for they rule and solve dependent problems. Generals include and explain particulars in their relations.

D. Well, if you must begin with outlines, lay them down, and then proceed to fill them with the particulars which they embrace and classify.

T. There you are right. The deductive and the inductive method must be duly employed in the systematic explanation of those complex subjects to which they apply respectively; and so

I start with the proposition that man is the centre of all the generalities, and of all the specialties of fact and thought that are to be considered in the study of political economy, and that his development into constantly higher and better conditions is the proper aim of all science or study concerning him. This ruling idea forbids us to consider political economy as a mere system, science, or theory of exchange value, or of men only as agents in the production of commodities, for this is not the ruling end of human life, but only one of its ministries.

P. Why, who ever thought of man, the monarch of the material world, as made only for the products of industry,—a machine, or a slave, in his terrestrial domain? Does anybody suppose that the chief end of man in this world is to manufacture pins, balloons, or galvanic batteries?

T. Don't be surprised that there is a necessity for contradicting the theories which you have described as impossibilities. I do not intend to startle you with a list of the honored names of those who have baptized this heresy with the name of philosophy. The citations will come along as occasion demands.

D. Your obvious grudge against the authorities whom the world at large receives and regards as sound in theory, and as guides in practice, must, I suppose, be indulged.

T. The world at large has very little to do with "the dismal science" of these anatomists of melancholy and prophets of evil. The teachers to whom I refer have made themselves reporters and expositors of the market-house, and are busy underpinning it and explaining the policy of huckstering. They take trade as the inevitable and controlling order of things, and employ their logic in the explanation and justification of its disorders. For instance, Mr. Malthus teaches (and his English successors and American disciples follow him implicitly) that there is in the natural order of things such a necessary disproportion of food to population that only "war, pestilence, and famine" can check the ultimate annihilation of the whole race. Ricardo, on the possible productiveness of land, sees no escape from general starvation but in the exhaustion of population by their premature death. McCulloch says that, "from the operation of fixed and permanent causes, the increasing sterility of soil is sure in the long run to overmatch the

improvements that occur in agriculture and machinery." And John Stuart Mill, in his chapter on "The Law of the Increase of Production from Land," reproduces these horrors in all their hideousness,—the over-population of Malthus, and the constantly declining productiveness of land of Ricardo and McCulloch. The facts alleged in support of this gorgon theory of general providence are the existing social disorders, accepted as the necessary results of the constitution of earth and man, and in it is a complete justification of all the resulting evils, wrongs, and tyrannies of society. Even Dr. Chalmers held that the system of English charities only multiplied the population, increased the evil of its excess, and are therefore unwarranted by enlightened philanthropy! Call you the just indignation provoked by this libel upon Providence, this doom of hopelessness upon man, a *grudge*! A theory so monstrous and so mischievous might, indeed, be passed over with contempt, but when it runs through and poisons every fundamental of a system of popular instruction it calls for an unreserved protest against its wickedness.

In the progress of our inquiries we needs must encounter the issues of this teaching, for they will be forced upon us; and I notify you now that we shall find the monster which these authorities call political economy and social science hydra-headed.

P. Pardon me for suggesting that I would prefer a catechism with the proofs to a controversy with the dogmatisms of the popular authorities. I have no more respect for the assumptions of scientists than I have for the guesses of sciolists, and I take no interest in the strife of words about them.

T. We will, then, proceed to lay down the corner-stones of the edifice to be constructed. The lines drawn from them, like those of the mason, must determine the shape of the work; and the plumb-line of proof, constantly applied in the process, will give the necessary stability.

The subjects of political economy are *man*, and those external things which serve his earthly wants, which embrace his mental and moral nature, so far as these are involved in his societary relations, and the conditions and management of those material things and forces which are required to satisfy his necessities.

Prominently among these requirements are, *first*, *association*

with his fellow-man, as extensive and varied as his capacities. *Second, individuality*, or the full development of the individual, for the reason that the greatest possible capabilities of the individual are promoted by the largest and most varied association with his fellow-men; and, reciprocally, the most complete association with his fellow-men is essential to the quality and power of the individual; and, resultingly, the duties, rights, and responsibility of the man are in exact proportion to the powers so cultivated.

D. This programme advertises you an out-and-out optimist.

T. I am not a pessimist; and there is no alternative but that.

D. I don't see that one who takes things as they are, and endeavors their explanation, must be either the one or the other. Truth usually lies between extremes.

T. Before making the compromise, suppose you try to explain, consistently with the fundamental dogmas of the dismal science which you accept, how you find place in it for the existing system of public charities, or even for the private benevolences of philanthropy? If the miseries of earth are in the policy of its appointed fortunes, can you interpolate aspiration, benevolence, hope, and redemption among its provisions? A theory, like a house divided against itself, must fall. And is it not safer, theoretically, to attribute evil to disobedience of law and order, than to the necessary issue of the natural system of things! The Great Teacher, indeed, said: "The poor ye have always with you." But he also said, "Seek first the kingdom of God and his righteousness (that is, the divine order of earthly things), and all these things shall be added unto you, to wit: what ye shall eat, what ye shall drink, and wherewithal ye shall be clothed" (Matthew vi. 31). He stated the ways of God to man, which is a sounder philosophy of society than an endeavor to justify the ways of man to man. A mob is made of men in that form of society, but a portraiture of such an assemblage is not a true theory of human relations. The disorders of the most orderly communities of men are also so far a departure from the creative intention, and give a very exceptionable view of the social system in its purpose and prospects. The spring-head must not be judged by the puddle which it feeds. "Faith is the substance of things *hoped* for, and

the evidence of things *not* seen.” And there is just where the philosophy of observation and experiment fails to meet the problems of moral science. The inductive system has its province exclusively in the inorganic creation. It has never had any success in mental philosophy, ethics, civil government, or social science, or any remedial system of animal or societary life. It rules among the phenomena of celestial and terrestrial mechanics, but is utterly incapable of the expediciencies demanded in the conduct of life united with liberty, or will acting upon motives.

CHAPTER II.

WEALTH.

T. The first topic to which I shall call your attention is Wealth. I begin the discussion by defining the word. Our lexicons translate the word into other words, such as riches, large possessions of money, lands, or goods, affluence, abundance of the means of living, etc. They also give it the old English signification—*weal*, welfare. The proper economic definition is, wealth consists in the power to command the services of material objects. It measures man's attained dominion over terrestrial substances through the agency of natural forces. The promised dominion of the earth, the sea, and the air, in all their latent capabilities of service, are within our possibilities, but this rich gift is upon conditions. The charter reads, occupy and subdue (Genesis i. 28); conquer and enjoy; know and command; learn the secrets of the creation and govern it. Yet the heir of all things finds the elements so amply provided for his prospective use, everywhere in resistance to his dominion. The fields and forests of his wide domain mingle thorns and thistles with their offerings of the fruits adapted to his needs; the skies rain influences which, in their wild liberty, mix the hostile with the subservient; the winds, that waft health on their wings, are also laden with pestilence and death; his actual life is a battle with his insurgent subjects, and it depends upon himself whether it shall result in victory or defeat. In his igno-

rance and nakedness he is the slave of nature ; but as he acquires knowledge he gains its power, and grows into the mastery of his proper dominion. He makes the earth feed and clothe him ; he converts the seas into thoroughfares ; he harnesses the winds to his vehicles of travel and transport ; and the treasures of the lightning are made to be the speediest and most obedient of his messengers. He learns the laws of his universe, and his achievements follow in the wake of his discoveries. The world was created by a word, and is subject to its wisdom under the agency of the creature made in the image of his Creator.

D. Following an hypothesis, you anticipate experience. You borrow from immortality the light to illustrate the mortal ; but is not human science, or the science of human things, the result of actual knowledge ?

T. I follow the light ahead. Your favorite guide is behind you, as if you walked backward. Your trusted experience is of the past, which casts only a shadow of itself upon your pathway, and usually darkens as much as it directs the pathway in discovery.

D. The great Dr. Johnson, however, said : “ Experience, which is constantly contradicting theory, is the only test of truth.”

T. Which is true enough as a test of problems, theories, and predictions, but certainly, the knowledge of the known is not a true test of the attainable unknown—the *a priori* leads the *a posteriori* at every step of advancement. Genius has intuitions and inspirations ; talent is its pupil. Experience is limited to revision and has nothing of forecast ; it records achievement, but does not prejudge the future. Experience figures in social history as a blind beggar led by a dog, with a wallet of broken victuals on its back. How it staggers and squirms when it encounters invention which knocks its crutches from its support ! Come, sir, science, sound and alive, is not a dirge or an epitaph, but a reveille. All real progress in learning is daylight springing from the twilight of the accomplished into the brightness of the coming.

P. I understand you to mean that wealth is the mastery of nature, and that political economy is not a mere science of values as McCulloch defines it, or of catallactics—a theory of exchange—according to Archbishop Whately, or that its measure is money’s worth in service and trade.

T. No. I prefer the rendering of Stephen Colwell: "the theory of human *well-being*, as it relates to the production and distribution of wealth."

P. This definition is to me an abstraction. Please tell us in what wealth consists—the substances or things in which it embodies itself.

T. In this limited aspect of the subject, I answer that its substantive forms are money, land, implements, machinery, food, clothing, books, furniture, ships, wagons, ploughs, and the like tangible objects of property; and, along with these subjects of weight and measure by scale and rule, the intangible efficiency that there is in Ideas, and the great auxiliary of material wealth that there is in Credit. Substances are instruments and subjects, and their employment is under the direction of agents. Perhaps I can better meet your thought by a definition of Capital, which embraces the materials of wealth, and the efficiencies which employ them in human service.

P. Does not J. S. Mill cover this ground satisfactorily in saying, "Capital is that portion of a man's possessions which he employs in further production?"

T. That is the commercial meaning of the term, but not nearly the economical, if by "possessions" is meant only material things. All the effective substances and *forces* employed in production ought to be embraced in the technical term Capital. Surely an axe used in felling a tree is not more efficient in the production of lumber than the arm that wields the axe, and the will that commands and directs the effort. It seems to me that theoretic materialism gets as stupid in logic as the brute matter to which it confines its consideration.

P. Wealth and capital, according to your apprehension, are not identical.

T. Not quite the same in substances and agents. Wealth properly includes all the substances and forces which give man the power to compel matter to his use; while Capital, in its restricted meaning, embraces only the substantive things and their proper forces, employed in the production of commodities or values. LABOR, in fact, has an equal right to be regarded as capital, because it is a fellow factor with all the material forces of pro-

ductive industry. The only reason for treating it separately is on account of its mixed character of mechanic force and human capabilities, moral, mental, and physical. A laborer has his capital in his bones and sinews, in his skill and will, for these are his "possessions employed in further production," and they are instruments as much as the tools through or by which he works. He is a man, a guest, not the ghost, of the fleshly tenement he occupies; that tabernacle is his warehouse and the powers stored up in it are his capital in the work of production. We must keep the man in view always as the machinist, not the machine, in labor.

P. Is real wealth measured by money or money's worth as we have it in statistical reports?

T. I must refer you to the definition already given for an adequate answer. It consists in the power to command the services of nature, and therefore embraces things that have no *exchange* value; and in this it differs from the things which have a market-price under the laws and usages of society. Its constituents range from the simplest provision for the needs of the animal life of man up to the highest enjoyments of his mental and moral life. The means of supply to all these requirements are truly wealth—they are all "possessions which he employs in further production" of their several kinds of capital. The food required by the appetites, the clothing for the defence and adornment of the body, are no less and no more constituents of wealth, than are the beauty that feasts the eye with forms and colors, the music which charms the sense, or the knowledge which enriches the mind. Health is wealth; and happiness, which is properly defined the gratification of any and every active faculty in all their severalities and kinds, is so much of wealth, or in other words all utilities are riches. You perceive that I cannot constrain myself to measure wealth by the exchange value of commodities. I do not say that a hearty laugh, like a bushel of potatoes, is worth a dollar; or, that the estimates of the market-house are the equivalents of the services rendered to the proper life of man. Whatever is the currency of the grand commerce which we have with the world of men and things around us is our wealth. Life is a system of exchanges, and all that we get and all that we give is the medium and the measure of value in our commerce with men and things.

D. To come down to business: The census valuation of the real and personal property of the United States is put in 1870 at thirty thousand millions of dollars, and the population at something less than forty millions. Do these estimates express or proximately represent the aggregate and distributive wealth of the nation?

T. These sums are calculations of the principal exchange value of our possessions, and of the number of our people. But following my idea of wealth, I ask, what dividend of current subsistence the principal yields,—what command it gives over the supply of our wants? The Rocky Mountains were prospectively and potentially worth all the gold and silver which they held, less the labor of extracting them, when the territory was occupied by its savage inhabitants; but were those creatures any the wealthier for the principal value of their domain? Things are worth what they yield. What was the effective value of the thirty thousand millions in the year 1873, when the country was bankrupt? Were they available for half their nominal amount? Or, a fairer instance, what is the capital value of the West of Ireland in a period of famine, measured by what it yields to its cultivators?

It is *uses*, not potentialities; it is actualities, not latent possibilities, that make the wealth which is the welfare of the owners of property.

The British way of estimating the nation's wealth does not concern itself with a computed principal of exchange values, but looks only to the annual product of the nation's fixed property, and of the current industrial yield of its capital, labor, and trade. Nor does it take account of the stocks invested in industrial and commercial enterprises, but of the actual fruits and profits of business of all kinds. The authorities there are simply accountants of earnings: they consider the rental, not the price of lands, and the interest, not the principal of the funds invested. They do not assume the work of the principal by what it might do, but what it actually does do, in the returns it makes in employment. In this procedure the English statisticians are wise, and escape the illusions to which our census valuations are so greatly exposed.

D. The current service work of property is, indeed, only what it yields in profit, interest, or dividends; but it must have some cer-

tain intrinsic value independent of changes in trade prices, else it could not at any time command a price in exchange ; its possibilities, as well as its fruits, are estimated in its valuation in business.

T. Yes, but remember that the benefits which it affords are just what it yields at and for the time. A man may own lands or stocks that have been, and may again be, worth thousands of dollars in market, but suppose that, during a business revulsion, they yield him nothing, would you call him wealthy; and what would you say of his welfare? If well-being is really the meaning of the word wealth, he may live and die in destitution in spite of nominal past or future valuations. A man is wealthy whose property yields him the means of commanding an abundance of the commodities and services he requires. Our definition, therefore, holds firmly against all the accidents which affect the subject. Labor is the source of wealth or welfare, because it forces products or the yield of property.

CHAPTER III.

THE GROWTH OF WEALTH—ITS AGENCIES.

T. Assuming, for the present, that wealth grows in all well-constituted societies, and, in proportion to their social and industrial development, we will get proof and the use of the proposition by examining the laws operative in the process. Let me give you an index to the several heads of the inquiry:—

We may accept Adam Smith's aphorism, that "labor is the first price—the original purchase-money—that is paid for everything;" taking care not to abandon, as Smith did, this fundamental principle, by limiting its force to that "rude stage of society which precedes the accumulation of stock and the appropriation of land." Mr. Carey's doctrine of labor value in all production is the proper correction of Smith's foundation principle, and under it we will consider the production and growth of wealth under the following specific agencies and forces:—

- 1st. Natural labor directly applied in production.
- 2d. Labor-saving machinery, or artificial labor.
- 3d. The resulting improvement in quality and quantity of commodities, agricultural and mechanical.
- 4th. Improvement in transportation, foreign and domestic.
- 5th. Substitution of the cheap and abundant supplies for the costly and scarce.
- 6th. Facilities of commerce—money and credit.

D. Pardon me for forming a pre-judgment of half-finished work. But I am puzzled that, in enumerating the sources of wealth and its elements, you give no place, much less the primary and most conspicuous place, to what economists call “the natural and indestructible powers of the soil.” There ought to be some place for the raw material of all commodities, unless you can make your industrial world out of nothing. If “Mother Earth” and her supplies were stopped, I think, your theoretic account of human wealth would have no ground to stand on.

T. That last hit, I own, is capital as a witticism; but what is it worth in logic? Let me, in turn, put a more pertinent question to you: Taking wealth in land property to be its *exchange value*, can you tell me how much of its price is traceable to “the original and indestructible power of the soil;” and how much is due to the labor employed in its improvement? Take any lot of ground in any of our principal cities, charge it with the cost of all the labor which has given it its present worth in other things,—the cost of buildings, with its proper share in the cost of the streets, the drainage, and of the police service, which make a part of its convenience, and therefore of its value; add the harbor improvements, the land conveyances of travel and freight, with so much of its valuable advantages as are found in its churches, school-houses, theatres, market-houses, libraries, hotels, parks, in its immediate vicinage; its shipping and railroads; its gas and telegraph service, and all the social advantages which it has been made to command, all of which are chargeable to the accumulated worth of the premises, and then see what is left of the present market value. That lot, in its natural condition, would not be worth the blanket that would cover it.

D. Land has in itself advantages of situation; for one instance, its neighborhood to market.

T. Labor made that market for it. It has no such advantage to the aboriginal Indian.

D. What do you say of the water-power which moves machinery?

T. Just what I must say of the currents of air which work in human service as the streams of water do when they are captured and subdued. Like the ocean and the atmosphere in bulk, they are latently capable of service; but they promote the growth of wealth just in the form and to the extent that human labor rules their inherent forces.

Moreover, land has no such "indestructible powers" in the composition of value as the economic formula assumes. In the fields long cultivated all that give them natural fertility has been exhausted, and artificially replaced often and completely. Matter, indeed, cannot be destroyed; but its forms and the forces of its atoms do by use become incapable of their primitive services.

D. Would you treat land, and discuss its offices and uses, not as a vital and original force, or body of independent forces, but as a machine?

T. If thorough examination shall make manifest its conditions and its management in use to correspond to those other combinations of materials which we shape and arrange so as to give results of which they are incapable in their natural state, we shall see that an inresistent vitality does not take any organism out of the category of mechanics. *Machinery*, called for distinctiveness celestial, is by all authors and thinkers applied to the movements of the heavenly bodies whose appetencies are innate, as truly as are those of land. There is a mechanism of the human frame and in its offices, such as respiration, circulation, and locomotion; and, as machinery, these functions must be considered, and may be so named, for the purposes of investigation and description.

D. There is, nevertheless, something rather startling in a classification forced to embrace the animate with the inanimate. I have not heretofore been able to see such connection between the substances of a mountain or of a meadow, and of a clock or steamboat.

T. Reflect. The spontaneous products of the soil serve the irrational races without their management; but, to become utilities to man, they must be converted by his administration into

conformable supplies. He removes its trees and grasses, and substitutes his grains and roots ; he ploughs its surface and sows the seeds, just as he digs the ores, and smelts and forges them into forms for his use. His instruments are all mechanical, and all their subjects are under its laws in his use of them.

D. Still, the word machine is customarily given only to artificial instruments, commonly consisting of various contributing and inter-active parts, which serve and regulate the intended operations and effects.

T. Well, you have just as accurately described the art and labor of agriculture in its government and modification of the earth's innate powers, and you may, if you must, call the work vital mechanics or terrestrial, or by any other name that does not alter the facts. The struggle from ignorance and feebleness all the way up to maturity of knowledge of, and power over, nature, is a study in the use of the physical machinery of agents, instruments, and subjects.

P. As words are instruments in the communication of thought, it occurs to me now that even language in its modifications of form is in an allowable and useful sense the machinery of converse ; that grammar is a *constructive* system, more like carpentry than Lindley Murray's ideal definition as "the art of speaking and writing the English language with propriety," which, by including lexicography and rhetoric, embraces too much, and confuses the art. He puts the vital or ideal into the purely mechanical properties and uses of words, with the effect of vitiating every one of his definitions of the terms of the art.

CHAPTER IV.

MAN AND LAND—OCCUPATION OF THE EARTH.

T. Now let us proceed with the most general facts in relation to man's occupation and cultivation of the earth, which will embrace both the laws governing colonization or emigration, and the rules in the selection of the kinds of land brought into occupancy and cultivation.

D. The choice of settlements in the various parts of the earth, and the selection of soils for individual occupation and cultivation, may be matters of history, but cannot need the researches of theory. Man is, not like the beasts and birds, limited to special localities. He is cosmopolitan, with the world before him where to choose, as Milton has it, and Providence his guide. It is clear enough that having the means of travel and transportation, he will choose the regions that are the most fertile and salubrious, and, in other respects, the best adapted to his use. Without doubt when land is abundant and population scarce, men will take the best soils and leave those of inferior quality to the next comers; and so on, till the last arable acre and of the lowest quality is, in the end, of necessity taken by the last class in the grades of successive takers. Ricardo founds his doctrine of Rent upon this progressive decline of productiveness of soils. In the nature and order of things this process of individual appropriation is settled, and no other theory than that of choice, limited by opportunity, seems to be required.

T. If in the whole round of speculation there can be found a theory utterly baseless, Ricardo's theory of Rent is that eminent one. In assuming its plausibility you have started a multifold variety of questions, which, I have the pleasure of informing you, have been settled against you by the most conclusive facts that theory can encounter.

D. Pardon me. Ricardo's theory of Rent commanded instant and general acceptance. The political economists of reputation have never called it in question. The mere statement of his propositions makes them self-evident. Can there be anything doubt-

ful in them? Allow me to state them in their self-supporting array. He assumes that when the quality of land, No. 1 in fertility, is still open to occupancy, nobody will pay rent for any portion of it: but when that prime quality shall have been all appropriated, the next comers, having nothing left them but quality No. 2, will of course pay the value of the superior productiveness of No. 1 for its advantages. Here rent begins, and so on the rent of the superior grades will increase through all the intermediate qualities until, as he states it, No. 7 is reached. The use of each successive quality adding its value to that of the first and all the following grades. Surely No. 7 must pay the difference of value between it and No. 6 if it would make the exchange. The arithmetical progression of numbers is not more certain than this anti-climax of value in land occupation. The very symmetry of the formula seems to carry with it all the harmonies of truth.

T. You have stated the Ricardo doctrine of Rent with sufficient explicitness and accuracy; failing, however, to face its horrid consequences, which both dishonor Providence and threaten despair to humanity: but, waiving all present objections to the moral of the fable, let me call your attention to some very obvious and familiar facts which your theory does not meet or dispose of. The primary fact is that Land in the state of Nature, and open to choice, must be *subdued* in order to be brought into service. Its forests must be felled, its swamps drained; its mould must be broken up, and the seeds of the required harvest must be sown; and the implements of the clearing and culture must be provided. The liberty of choice is therefore put under conditions. It is not merely a preference founded upon degrees of fertility or other conditions of situation. There must be a calculation of resistances in the selection. The rank fertility of the best soils may demand labor and capital which the pioneer does not possess. The richest of all, which he might otherwise select—the marshes that have drained the surrounding hills of their wealth for ages—are in open and obstinate resistance to his very limited resources. In a variety of prepared and perfected commodities a man will choose and take the best for immediate use, because he is not embarrassed by any conditions precedent to the enjoyment, but when there is resistance to be encountered, and acquirement must be the result

of a conquest, the case is changed. A schoolboy will not choose a contest with the stoutest on the playground. He will not choose a combatant away above his match, but will prudently refuse an antagonist any way from No. 1 down to his own figure if it happens to be No. 5 or 6. It is not historically true that the pioneer, or any early settler of new lands, chooses the richest and best soils. He is not a match for them. It is matter of fact that, passing by and avoiding the bottom lands, heavily timbered, and those that are pestiferous with the exhalations of their abundant vegetation, which riots and rots on their surface, he chooses the hillsides, lightly timbered, well drained, and easily cultivated, consenting to climb up and down the acclivities until, in process of time, increase of capital, and of natural and artificial labor qualify him to invade the richer land below him. Do you know why the earliest thoroughfares of trade and travel in the middle States of this new country wound up and down the hills and ridges of their routes? Can there have been any reason for it except that quality Nos. 3, 4, or 5, among the soils, was of necessity chosen by the first comers, and travellers and traders were obliged to plod the ups and downs and round-about to find the rest and hospitalities of their wearisomely indirect journeys? In Pennsylvania, a hundred years ago, the eldest son had the right of choice among the lands of intestate decedents. He took in preference the hills, and left the hollows and low lands to his coheirs. Many family quarrels began in that distribution, and some of them have not yet been healed, because the unfortunates of that early day were compelled to accept Nos. 1 and 2 which they then could not manage. The richest lands of the commonwealth which lay vacant for half a century, have since been opened and drained by our railroad companies, and the swamps have been converted into gardens, of a tenfold productiveness above the hillsides at first preferred.

In the history of all settlements of land, every fact contradicts the basis assumptions of the Ricardo theory. Every fact and every instance reverses his order of progression from the better to the worse. The true progress is from the lower qualities of soil, from No. 5 or 6 or 7, upwards toward No. 1, which, by the bye, has never yet been reached, either in the British Islands or

in America. Turn Ricardo's symmetrical table of grades, in the progress of settlement, upside down if you would have the truth of experience and find the governing law. The correspondence of this law is seen in the route of progress which men make in their government and employment of all other machines, implements, and subjects of their industries. They began with stone axes, passing afterwards through those of copper, brass, and iron, until they arrived at steel; from the distaff and the spindle to the spinning-jenny and the power-loom; from the canoe to the steamship; from the packhorse to the locomotive engine. Nowhere do they begin with the best subjects or machinery. Human progress is always in the same direction—from the poorer to the better. The question of settlement and occupancy of land does not rest in a choice of inherent qualities, but in adjustment of the chooser to the task of effective control. Let me also cite the fact that the richest soils in the world have been abandoned, when the occupants became poor in capital and labor. The Campagna di Roma, and the Daccan in India, are examples. The former, up to the gates of the Eternal City, once covered with the villas of its citizens, is now abandoned to sickly herdsmen, who are exposed to the miasma of its uncontrolled fertility; and Bishop Heber tells us that the tiger has returned to the jungles in a district of India, once the site of temples and towns. The declining forces of numbers and means have surrendered the lands No. 1 in their natural productiveness, and retreated to the less fertile lands better adapted to their command.

D. I am not provided with any adverse instances. There may be a beauty in theory which is not strength. I recollect that Newton's doctrine of gravitation was very effectually resisted by Descartes' notion of *vortices* or whirlpools of the planets.

In some connection with your theory of the occupation of land, and, perhaps, dependent upon it, how do you dispose of the doctrine that man is cosmopolitan and is capable of accommodation, through artificial agencies, to all climates and regions of the earth, and is thus distinguished from the inferior animals, who are bounded in their habitudes by soil, and climate, and by their dependence upon the spontaneous productions of the earth?

T. I dispose of the cosmopolitanism of man,—of all men alike,

I mean, by denying it. The human race or races may, though inexactly, be called cosmopolitan; but no family of man is so. The varieties of the race, taken in the aggregate, are destined to occupy and replenish the whole habitable globe; and for this purpose a thousand stocks or families are distinctively and variously qualified, just as there are a thousand differences of physical adjustments of condition in the thousand diverse regions of the earth. To prevent the entire race from desiring and struggling for any one location, each variety is fitted and qualified for the ultimate occupation of a distinctive region by a distributive impulse, not wholly unlike the instincts that dispose and limit the residences of the fowls of the air, the beasts of the forests, and even the fishes of the sea.

Could harmony be provided for by an universal cosmopolitanism among men any more than among the inferior creation? Depend upon it, *a priori*, the entire occupants of the earth, including its human population, are governed by a law which, however disturbed by accident, resulting from the modicum of liberty and casual accommodation accorded to man and animals, is ever working toward the purpose of the Creator. Is not this probable as it is necessary? And shall we not hold words and current notions under correction, so far as they lead to error in opinion and mischief in practice? We must give this subject a special section.

CHAPTER V.

THE LAW OF MIGRATION AND OCCUPATION OF THE EARTH BY THE HUMAN RACE.

D. The *law* of migration! Instead of law, might you not say the liberty of migration. Freedom and capability of inhabitation seems to be the character of man universally. But you have a habit of contradicting the authorities whose teachings are so restful and so easily understood.

T. In this case I am not irreverent; I only invite you to understand Milton's oracle, "The world before them, where to choose,

and Providence their guide ;"—the condition annexed to the representative man's freedom of choice—the guidance of Providence. The law of migration covers this guidance, this general providence of the earth's economy, in a larger sense, probably, than Milton intended. It is a law of climate, mainly determined by isothermal lines, by which freedom of habitat is limited ; and it is not affected by the freedom of casual travel, exploration, or invasion. In these movements the enterprising, the curious, and the restless have an exceptional and a temporary exemption from the restraining conditions of their nativity. The law relates to and governs the permanent homes chosen by emigrants, with some allowance for the influence of acclimatization, of which even vegetables are capable. The laws of life are nowhere stiffly inflexible. They are not chemical or astronomical, but vital, and subject to such modification as gives our free agency in their management such limited control as shall serve our ends, but without interfering with their ultimate tendencies. Man rules the creation, but the Creator *overrules* it.

In the temperate zone we have a compromise of the extremes of climatic conditions and constitutions nearly alike, or not very unlike, so that the nationalities of the zone generally can adjust their differences to it, and wear them into conformity ; but no broadly marked nationalities, with their differences of language, customs, religion, and of arts, are found out of their natal climates.

The spirit of conquest and of commerce carries men all over the world and across the geographic zones ; but colonization closely follows accustomed temperatures and other physical conditions.

The barbarous invaders of Rome came down from afar in the north, northeast, and northwest, traversing five degrees or more of latitude and a larger range of climate, into what we call a more genial, not a more congenial, region : but they retired, after a temporary sojourn, into their natal homes. The Saxons could permanently inhabit England, for their native land lay in the same latitude ; and the Normans had only to cross the English channel to change their residence, without any important change of atmospheric conditions. The Moors held their place in Spain during half a dozen centuries, because all of southern Spain lies within the isothermal lines which bound the Mahometan conquests and

settlements from the shores of the Mediterranean, through Arabia into Persia and India. Mexico lies in the same belt of temperature as southern Spain, and Cuba touches its borders. The Scandinavians trace their origin to the Himalaya Mountains of Asia, having a climate similar to that of northern Europe.

More remarkable than these instances are the facts of immigration in our own country and time. Here the law of climate governs colonization and migration with less exception or less variance of operation, I think, than are found in any other department of vital statistics. Allow me to refer you for the demonstration to Dr. Elder's "Questions of the Day," page 331.

P. Let me interrupt—Does the thermometer or barometer, or both, give the scale of measurement for what you call climatic law?

T. By *climate* is intended heat, moisture, winds, and all atmospheric forces which mark the salubrity of the region to be occupied. Isothermal lines are the nearest general indications of all the agencies which affect the life, health, and occupations of men; but let me caution you that on this point only the most recent maps are reliable, and that even these are not yet exact or complete.

D. There are some exceptions to the rule, but I suppose you will claim that they prove it.

T. No. Exceptions do not prove a rule, but on the contrary, so far as they go, they contradict and disprove it. Evidence is testimony to the truth, the whole truth, and nothing but the truth. That saying is one of the shabbiest that could be used to cover errors of speculation.

Your apparent exceptions, if I may guess at them, are such as the world-wide rule of Imperial Rome. But I answer that while she held so many diverse regions in subjection, she inhabited Italy only. Military posts and governmental agents were all that constituted her presence either north or south of her own belt of temperature. In this England and France resemble the ancient mistress of Europe, Africa, and Asia. They hold all their foreign provinces of unlike climate by their armies of occupation and officers of civil government; and these are changed in personality at very brief intervals. There were not so many as fifty thousand white persons in the British West India Islands when the colored population amounted to eight hundred thousand. In 1861 the

population of East India under English rule, was variously estimated at from 135 to 200 millions, while the English residents amounted to only 125,945 persons, of whom 84,083 went to compose the British officers and men of the army; 22,556 were men and boys in the civil service, and the whole remainder were 19,306 women of European origin.

D. This law so proved, with the apparent exceptions so explained, is as new in its announcement as surprising in its bearings.

T. Yes. Even its discoverer, Henry C. Carey, was not aware of it until after he had published the last volume of his "Social Science" in February, 1859. Yet its exposition and demonstration, to which I have already referred you, shows, by the crucial test of its application to the United States, that in 1860 only one person in every fourteen was found residing and sojourning outside of their nativities, throughout the whole range of our immensely wide domain, while it was freely open to the emigrants of foreign countries and of the earlier settlements of the Eastern and Southern States.

Allow me to think and say that the doctrine is proved.

P. If this law of occupation of the earth be true, it must also be true that the broad differences in scientific attainments, religious beliefs, political institutions, and even the kinds of literature and art must, as they arise out of the constitution of differently endowed peoples, follow and conform to it. Do mental methods, systems of morals and of society, the fine arts, music, poetry, and the drama, attach to nativities and climates with a conforming persistency?

T. I don't happen to be an encyclopedia of history, arts, and sciences, but if the proportions of a Hercules may be safely inferred from the size of his foot, as one of the canons of criticism has it (*Ex pede Herculem*), I may be allowed to believe in its consonance with all that I do know within the province of its jurisdiction. I feel at liberty to say that the popular and the authoritative notion of cosmopolitanism is opposed to providential law; that its doctrine is absurd, and its endeavored reduction into practical results is a mistake and must prove a failure.

D. Mr. Seward is responsible for the announcement of an irrepressible conflict between the North and the South of our Union. What say you to its necessary existence?

T. Mr. Seward affirmed only an irrepressible conflict between chattel slavery and republican liberty, but this arises probably out of causes more permanent in their nature and power than the incident of the rights of persons under political government. More to the point and bearing of our theme is the view of Alexander Hamilton, as it is given in the *Federalist*. He held that a division of the States, upon failure to adopt the Federal Constitution, would strike an east and west line, making a solid South and a solid North in political organizations at its outset, which has since been nearly effected, and still threatens our national integrity. This was prophecy, and it is in the possibilities of history. Division, once begun, may go further, and give us a Southern, a Middle, and a Northern nationality, with the centre of the latter upon the St. Lawrence, and the other portion in Canada. I cannot infer a Western division, separated from the East, in the same belt of temperature, because the Rocky Mountains are not now natural divisions as in the olden times, before railroads and the telegraph obliterated such natural impediments to union and commerce between peoples naturally allied.

D. Is there, then, such danger of secession in the natural law and constitution of things?

T. The natural laws are ever operative, but subject to modification, so far as voluntary agreements or conventions can effectively work under them. The aggregations of political States according to nationalities, and the severances of territorial dominions, forced by the craft of statesmanship and the mastery of arms, which are now going on in Europe, must go on until providential adjustments shall be realized; until the most general order of the right man in the right place shall be settled. In the mean time Federal unions will grow as they are now growing into use, in which the severalties of every people shall be respected and secured, and thus a general harmony will be attained. Differences are not a ground of war. Diversity of parts, held in their proper relations, make up the most perfect organisms. The compromises of our Federal Constitution are its irregularities in operation. There are no compromises in the man—the model of society. All his functions are held in harmony by the adjustments of justice to the best uses and the greatest freedom of every organ in the general frame.

The relation of man to land is significantly expressed by the good old Saxon word Husbandman—a child of earth destined to be its lord; a ruler, but not arbitrary; a representative, as well as governor; his own conditions a reflex of the conditions which he controls.

D. To what issues do these abstractions tend?

T. They are the elements of man's terrestrial welfare. They are the outline chalk-marks of the picture to be painted. The globe, with its atmospheric auxiliaries, as he finds it, is only an assemblage of possibilities, latent forces, put at his disposal under the laws inherent in them.

P. I understood that, in the study of wealth, we must begin with the sources of our supplies—land and labor—land as the material, and labor as the efficient producer of things in forms for use.

T. At the very first step of the discussion we must either stumble over or remove the theoretic obstacles which the political economists in vogue have thrust into our pathway. Malthus and his followers teach that “the one great cause that has hitherto impeded the progress of mankind toward happiness—that one which has caused the existing inequality in the distribution of the bounties of nature—is *the constant tendency in all animated life to increase beyond the nourishment prepared for it.*” PREPARED for it! What do these grumblers mean? Is there any lack in the stock of materials capable of assuming the forms required for human service? Are the mineral ores, the fossil coal, the stores of natural fertilizers, exhausted? Have sun-heat, electricity, and the treasures of rain and dew given out? Has the whole surface soil of the wide earth been emptied of its vitality, or ever been tasked up to its capabilities anywhere? Have the productive capabilities of the inferior animals failed to yield their tribute to our sustenance and service? Oh! the materials only are furnished, but the feast has not been prepared; and how could the Creator declare, when reviewing his week's work, “It is very good,” when it was *prepared* and good only for the herb of the field, the beasts of the earth, the fowls of the air, and the fishes of the sea; while man, for whom all these creatures were made, was left to dependence upon his own industry for the means of his

support,—to earn, “in the sweat of his face,” the means and supplies of his animal life? Ah, luckless wight,—ah, heavy lot! “Behold the fowls of the air: they sow not, neither do they reap, nor gather into barns, yet your heavenly Father *feedeth* them. Consider the lilies of the field, how they grow; they toil not, neither do they spin, yet Solomon in all his glory was not arrayed like one of these.” (Matthew vi. 28.) Was man made only a little lower than the angels, and not so well *prepared* for as the beasts that perish?

D. Interpreting the actual and true report of man’s earthly history into a complaint, by the narrators, against the dealings of Providence, you treat it with a bitter irony, but, in fact, food-famines crowd the chronological tables of remarkable events. They recur in frightful frequency, accompanied with plague and pestilence.

T. They never happen except in exclusively agricultural countries, and where the agriculture is never any better than a system of land-robbery. The soil is not only a machine requiring treatment conforming to its properties, but it is also a bank of issue and deposit. The shareholder may draw upon it to the extent of his stock or the principal, but, when he becomes a borrower, his deposits must be kept even with his drafts. It honors no overdrafts.

Famines are never universal, nor even prevalent over considerable extents of territory. Food was abundant in Egypt when Israel was starving. Grain is often rotting unused in the neighborhood of regions that are in destitution. Mark, learn, and inwardly digest the ordinance of Providence that has made the whole variety of men’s industries interdependent; intending thereby a well-balanced employment of *all* their faculties and of their diverse agencies in the maintenance of social relations, in order that the many members of the grand man, or community, may work together in harmony, so that “the eye cannot say to the hand, I have no need of thee: nor again the head to the feet, I have no need of you.” (1 Corinth. xii. 21.) The productive industries which are not under the skyey influences provide for the casual deficiencies of agriculture. When you can point to a case of famine in any country of diversified industries you will

have an instance calling for an extraordinary explanation. An island, or a district, depending for food upon a single root, and having no pursuits that supply the means of purchase, may starve in a bad year; but what is this against the bountifulness of provision in a system of adjustment of means to ends? You may not believe in Edenism, the golden age, and the fall of man, but the manifest misgovernment of the earth, socially and industrially, must be considered in explanation of its catastrophes.

D. But there is an unhappy disproportion of food products to demand in England itself, highly cultivated as it is, notwithstanding its large diversification of industries. The pressure of its population upon sustenance, even if only occasional, makes a hitch in the even run of your theory.

T. But not in the proper effect of a complete variety of employments. The matter of wages or earnings is the great factor in the fortunes of all that live by food and do not produce it. But, the direct and immediate relations of man to land are the subjects now in hand; and accidents, incident to existing disorders, must be postponed till they can be treated in their proper place. The possible sufficiency of supplies for all the wants of life, conditioned upon the proper management of the great machine, presents itself first for consideration.

Admitting that agricultural products differ from those which are usually styled manufactures in this, that they are not capable of an equally indefinite increase by any possible means applied; and, admitting that mechanical forces have a larger range of converting power over dead matter than cultivation has over the vital properties of the soil, the limited demand for food may be met fairly by such limited capability of supply. Sufficiency, not infinity, is all that is required.

It is held, however, that because arable land has measurable limits of extent, and also of fertility, and, that in some cases and places the utmost of its capabilities have been reached, while the apparent or prospective demand for its supplies is theoretically unlimited: let me answer this partial inadequacy by suggesting that the world is bigger than the biggest barnyard. The poultry, with their wings clipped, may scare at a threatened scarcity of food while their mouths are multiplying a dozen times at

every hatching. Domesticated fowls, with their prospects bounded by their yard fences, have no prevision of the granaries of Providence.

D. The Reverend T. Malthus, David Ricardo, J. Stuart Mill, and J. R. McCulloch have been domesticated, indeed, but without losing their strength and skill of wing; they have become household pets wherever their works are studied, and their cluck and crow are familiar throughout Christendom.

T. For the present; but, for the future! "that is as hereafter may be." Hold the fort bravely while your ammunition and provisions last, and die in the last ditch, as becomes a partisan. In the mean time let us be no respecter of persons, only grateful for the services they render us, and as respectful as allows us our own liberty of thought.

To resume the dispassionate investigation of our subject. The limit of productiveness of the soil has, apparently, been reached in Belgium, in some localities in England, and in the immediate neighborhood of the largest cities in America. Usually land is in service in the temperate zones not more than two, three, four, or five months in the year. In some special places it is made to produce three crops in the season. And here and there gardeners and fruit-growers draw from an acre four or five hundred dollars' work of product. We have authority for saying that some seeds yield thirty, some sixty, and some one hundredfold. The miraculous multiplication of the loaves in the wilderness is cleverly approached in the agricultural art and industry of China and Japan. These results prove the latent capabilities of the very least productive soils similarly situated.

P. I have heard our general system of rural management called scratchiculture, and our treatment of the soil, scalping it,—terms that, I believe, pretty fairly describe both the indolent inefficiency and the savage violence with which our virgin soils are generally treated; and it seems to me that a theory of things as they are is not a philosophy of natural law.

T. It is safe to say that all of Great Britain, Italy, Belgium, and France, that has pushed the possible fertility of their lands to their utmost, is not more than equal to the area of Pennsylvania, which measures 46,000 square miles, or $24\frac{1}{2}$ millions of acres.

Now Pennsylvania has but $1\frac{1}{2}$ per cent. of the territory of the United States, and the fully cultivated lands of the European countries named are equal to only the one sixty-sixth of the territory of this Union.

The proportion of the arable lands, which are under any kind of cultivation, is a very small fraction of the quantity still waiting for the plough; and remember, that those usually called arable, in no case embrace the best of all,—the marshes, swamps, and other waste lands that stand unavailable till abundance of labor-power, natural and artificial, and adequate capital, shall be applied to their subjugation. It would not be extravagant to estimate the food-producing power, lying within the prospective domain of culture, at ten times the amount as yet put to duty; and that not a fourth of the potential fertility of those already appropriated and worked has ever been extracted from them; and that not a man that has ever been starved or stinted but could have been abundantly supplied by the surplus elsewhere produced, wasted and perverted from its proper use. It may be conceded to the pessimist theorists that the resources of sustenance from the soil, as from the seas, are neither unlimited in substance nor service for human use. The same thing might be said of sunshine and rain; but if there is enough of these in store capable of appropriation, if the thousand millions of men upon the globe have not yet conquered 10 per cent. of its surface, or so much as 1 per cent. of its capabilities of service, it is of no moment that a few garden spots, which could be covered by a lady's thimble on a medium sized map of the world, have been pressed to their utmost productiveness.

P. If not irrelevant at this stage of our inquiries, I should like to know so much of the statistics of agriculture as are the proper data of its doctrines. One needs the facts and figures for conclusions so general as those which you invite us to accept.

T. Having postulated the sufficiency of the earth for the support of all its possible inhabitants, experience, rightly understood, is competent testimony, and I proceed to adduce it:—

England, which may be taken in the average and in the whole to be better cultivated than the other parts of the United Kingdom, has an area of $32\frac{1}{2}$ millions of acres; 27 millions, including

meadow and pasturage, are under tillage; 2 millions of the presently arable are uncultivated; and 3 millions are moor and mountain, regarded as waste lands. Of these lands, those in the best condition are stated to produce about 46 bushels of wheat per acre, and, of course, a more than equivalent yield of roots, fruits, and other nutritious vegetables; for while grains, that grow above the surface of the soil in their greatest fruitfulness, are measurable by the bushel, the roots of the subsoil are as tons in weight or quantity. I have known one acre to produce two hundred and thirty dollars' worth of carrots and cabbages, against sixty dollars' worth of wheat, which, at the utmost, it would have yielded in the same market. I leave you to cipher out the relative value and service derived from these varied kinds of productions, and to strike the average of a due admixture of them.

Suppose only three and a half millions of acres of English land were made to yield but thirty bushels of wheat to the acre, the product would be a hundred and five millions of bushels, or say, five bushels per head of the population. (This is the average consumption of that grain in the United States.) This proposition leaves twenty-nine millions of acres for all other vegetable productions, among which roots, fruits, and other edible vegetables yield three or four times more of sustenance than does the wheat grown for bread. Is it not clear that the lands of England are capable of yielding an ample subsistence, under high cultivation, for all their human and animal occupants?

D. But England in fact imports at least one-fourth of her food supplies.

T. We are examining the capability of her lands, not the actual employment of them. Her misgovernment of her territory and tenantry has already introduced, and will end in a complete revolution of her monstrous abuses in the system of her government. Her conservatism is now rapidly running into a radicalism the most portentous that the civilized world has ever witnessed; Law and landlordism have gone so far into extremes of abuse that the fundamental doctrine of property—"every man has a right to do as he will with his own"—is about to be overturned. Her theory and practice of political economy are the worst in all Christendom, and her example is no longer even quotable, much less directory

in the production and distribution of wealth. But, directly to our subject. France, whose political government is a rapid round of revolutions, has a stable economical system which is maintained through all changes of civil rulers; yet she not only feeds herself with all things except tropical products, but exports food in immense quantities. For instances of her abundance: In the year 1821 her agriculture yielded five and a half bushels of wheat per head of her aggregate population. In 1857 it had risen to eight and a half bushels, or three and a half bushels more *per capita* than we consumed. She produces twice our quantity of potatoes; her beet-root sugar is more than seven pounds per head—in a word she is in all things, except such as her climate refuses, self-supporting. And her available means for meeting the enormous expenses of domestic and foreign wars are a world's wonder to-day.

I presume that I need not speak in reference to our own country—of its capabilities for the maintenance of its inhabitants, present and prospective.

I may, if need be, when you are at leisure for the examination, furnish you with statistical tables of food production and supply of requirement, that will sustain the very boldest calculation and prediction of sufficiency, and of a constant increase of subsistence of all kinds, far in excess of the growth or requirement—supply actually in excess of demand. Verily “He giveth to all good measure, pressed down, shaken together, and running over.”

D. You insist upon sufficiency, but the term is by its own force relative to demand, and, is it not true that the number of mankind grows in a geometrical ratio, while food, under the most rapid practical improvement, increases only at an arithmetical rate; that is, after the formulæ of Malthus, the human race is capable of multiplying one hundred and twenty-eight times in the eight quarters of two centuries, while agricultural products are not possible more than eight times?

T. A direct consequence of this *assumed* rate of fecundity is that, if all that are born should live to threescore and ten, there would soon be no standing room left for the race on the face of the habitable earth; but, as you say, sustenance is relative, and, therefore, the tendency to such a catastrophe may be found not in the provision for subsistence, but in a disproportioned production

of life. Malthus assumed a constant quantity in the increase of population, and fixed the rate at the highest possible figure for its measure. But, that it is variable and not constant is one of the plainest facts of experience and observation. This matter must be postponed to its appropriate place in our study. Then we can inquire whether an excess of life occurs under the order of nature, requiring the remedy of premature death for the apparent blunder in the Divine appointment of means to their ends, or whether the bills of mortality rightly suggest a departure from, and an abuse of, the intended agency of man in the exercise of his functions. There is, indeed, much suffering in the life that now is, past, present, and in the immediate future; but I suppose not more suffering than sin, which is violation of law. I cannot even imagine a system of existence in which wrong shall get along as well as right. We are looking for the *law* of the subject.

D. But the facts of history in all times and places—do they not support the teachings of what you are pleased to call the dismal school of the economists?

T. So far as they can support anything they do. But allow me to object that the disorders of misgovernment, the ill distribution of the products of industry, the follies and crimes of ignorance and lawlessness, the potato-rot in Ireland, the cholera in Asia, the grasshopper plague in Wisconsin, the cotton worm in South Carolina, and the never ceasing emigration from Europe, are the puddles from which these philosophers drag up their data and fabricate their theory—grounds about as good for a system of providential laws, as a street riot affords for a philosophy of society organization in conformity to nature and order. How these interpreters of the mysteries philosophize upon the facts which disorder supplies!

D. Your theory is probably calculated for the millennium.

T. It is predicated of the harmonies of nature, used as a straight-edge for detection of the departures of human conduct from the order to which man and his circumstances are made responsible. I would have a standard of abiding truths, not a jumble of accidents and errors, for a science of life. A standard is an aim, a rule of criticism, a directory for amendment. It is not a justification of evils, and cannot be made a warranty of

opinion and conduct until "whatever is is right." The changes which are improvements of the past are well approved by their effects, and the improvement of the future under direction of the absolute best may be allowed, even if it does keep an eye on the millennium, as a wanderer in the dark takes the stars for his guide.

P. Do you find a constantly growing stock of food supplies both in England and France?

T. In England, to-day, land yields fully five times more than in the time of Henry the Eighth. Elizabeth's maids of honor were regaled upon beef and beer; vegetables and cultivated fruits were imported rarities. The wild boar's head was the crown of the franklin's feast; and the sirloin of beef took the honor of knighthood at the nobleman's table. Wines of foreign production abounded in the carousals of the wealthy, when a shirt, clean or otherwise, was not in the toilet of the most luxurious. The sixteen quarterings upon the shields of the descendants of the Norman conquerors are just as true measures of the increased productiveness of these landed estates as of their rank in the records of the herald's office. These landlords, or lords of the land, grew with the growth of the soil they were originally made of. The correspondence is a fixed law. Increase in the conditions of man tallies, step by step, with those of the earth he sprang from and lives on. The real wealth of a people is indicated by the value of their fixed property, not by that of their movables, for the sovereignty of the soil is measured by its improvement, or its subjection under the conditions of the great charter recorded in Genesis, chap. i. v. 28.

The land over which the savage roams is not a subject of ownership; it is not a property, but a temporary use, such as it is to the beasts and birds. His wealth is all in personal and movable goods. The measure of the wealth of every nation, of every State in this Union, and of every district in it, is found in the preponderance of its real-estate value over its personal property.

P. Will this rule of estimation hold in particulars and in detail, as well as in the general, which seems to me well supported by the reason of the thing? Real estate is a permanency; personal is evanescent, consumed in its intended use, and its value is a matter of conventional estimate.

T. For an instance which fairly covers the general application of the rule: In 1860 the total census valuation of the rebel States was \$2,289,029,642, of which \$842,927,400 was in slaves,—more than one-third of the total amount. The real estate of those States, as estimated by the marshals, was then 43 per cent. ; and the personal of all kinds was 57 per cent. of their property. At the same time the average of real to personal estate in Pennsylvania, New York, and Massachusetts was 75 per cent. of their total valuation. South Carolina, Georgia, and North Carolina had but 30 per cent. in real estate, against 70 in personal. The proportion of real or fixed property in exchange value to its floating capital is the true measure of a nation's wealth and of its grade in civilization.

P. I see that this rule holds in the estimate of the aggregate money-worth of a nation's property, but the welfare of a people must depend upon the distribution of productive capital ; and, in consequence, the permanency and availableness of the aggregate to the general welfare. How do France and England compare in this respect ?

T. In England the lands are being concentrated in the hands of a constantly decreasing number of proprietors. In 1688 there were 840,000 landholders. Adam Smith puts the number in 1776 at 200,000. In 1822 they were reported at 32,000 ; in 1861, 30,766. To-day 100 persons own 4,000,000 acres. In keeping with this monopoly in England 12 persons own one-quarter of Scotland, and 744 own more than one-half of the soil of Ireland. Such an allotment must be disastrous to the mass of society, and so, essentially to the few, who at last depend for their prosperity upon the general welfare of the community.

France is governed by a different policy, with a corresponding difference of results. Her lands are, for the most part, divided in ownership to the last possible extent. The law of March, 1793, conforming to this tendency, contributed to its prevalence by abolishing testamentary freedom, obliging parents to make an equal division of their landed property among their children. The result is that the present proprietor of his acre or two is a *husbandman* ; he is wedded for life to the soil, and cultivates it as ownership only can induce. He does not emigrate ; he is not a tenant at will of

the field, nor a nuisance in the highway. He views every inch of his little domain with the affection which the smaller properties always inspire; and he is, in the language of Adam Smith, "the most industrious, the most intelligent, and the most successful of all improvers."

An English authority, comparing the respective tendencies of these different land policies, says: "English laborers, at the best, save not more than one-fifth of their earnings; but the economy of the corresponding French laborers saves four-fifths." It is the intended investment in land that incites them to the utmost prudence in expenditure, which, while it brings him a little wealth of independence, takes as good care of his morals.

P. If such are the results to the individuals, the constituents of the community, they must appear in the common wealth.

T. The ability of France to pay and provide for the payment of above 1800 millions of dollars of debt in less than three years after the most costly and destructive war in modern history—embracing the German indemnity, with the added current expenses of the war, foreign and communal—indicates greater strength than England could have commanded in present payment from all her resources. Of all the nations, the United States alone have met an equal pressure upon their resources with equal success.

When, in 1854 and 1855, Louis Napoleon turned from the bankers and millionaires to the common people for the immense loans which he required, he was offered three times the amount called for. The subscriptions of the people residing outside of Paris in a single twelvemonth amounted to \$429,800,000 more than the amount asked for,—43 per cent. beyond the demand.

P. I notice that you have said nothing about the progress of agriculture in the United States?

T. The progress or movement has been so irregular here, and the extended cultivation of the new lands of the great West has so confused the meaning of the general reported results, that the capabilities of the soil under improvement are not clear enough for the purpose of inquiry. Moreover, our vast inheritance in land, in its fresh fertility, has hitherto worked effects, such as enormous estates usually do when they descend to prodigal heirs, who can neither see nor fear an end to them.

Our history of agriculture is one of superabundance under wastefulness. The aggregate income has happily covered the extent of the destruction; but in the test cases it is confirmatory, both negatively and affirmatively, of the doctrine we are maintaining. The history of the worst indirectly supports the inferences from the best. The consequences of the violation that rules in the relation of man to land are found in such statements of fact as are here given:—

Silas Wright, Governor of New York, said, in 1848, that before the Revolution of 1776, twenty to thirty bushels of wheat was the common crop in the county of Albany, and that it had then fallen off to twelve. The *Plough, Loom, and Anvil*, an ably edited agricultural paper, supports this statement, saying, in 1848, “The yield of wheat per acre, twenty years ago, in the State of New York, averaged twenty bushels, but has declined to twelve; and that, in the comparatively new State of Ohio, the average had been twenty bushels, but had fallen in twenty years to ten or twelve. Governor Wright also said that, in 1798, the Indian corn crop, which was as high in New York as one hundred and twenty bushels to the acre, had, in fifty years, fallen to twenty-five. So much for “the *indestructible* powers of the soil” of the economists of the school in vogue.

Governor Wise, in an address to the people of Virginia, a little while before the outbreak of the great rebellion, described the agriculture of the State as scratchiculture and land-butchering in this style: “Your inattention to your only source of wealth has seared the bosom of mother earth. Instead of having cattle to feed upon your thousand hills, you have to chase the stump-tailed steer through the sedge-patches to procure a single beefsteak. The landlord has skinned the tenant, and the tenant has skinned the land, until all have grown poor together.”

Our agriculture is a subject for pathological, not for physiological, science. The better examples are found only where land has been properly treated.

D. You make the great productive machine cost extravagantly in working expenses and repairs to afford the chosen examples of its highest product. Is not the required investment quite beyond the means of the ordinary and average farmer?

T. Under natural laws issues depend upon, and are propor-

tioned to, agencies My object is to prove the possibilities of the provision in store for human necessities. If I argue from the example of lands that are highly cultivated, without considering the cost to be encountered in bringing up the inferior qualities of land, and of subduing the best that are waiting their turn and time for service, I am inviting you to see the law of harmony between the growth of numbers, increase of wealth and power, and the improvement of machinery, on which progress is conditioned, and which is now manifesting itself, step by step, as the demands for masterly cultivation proceed. Remember the terms of the great charter, "Increase and multiply, and replenish the earth, and *subdue* it," that you may have dominion over all the realms of your appointed sovereignty.

Why should wheat, fruits, and roots, adapted to human use, be produced in advance of the need, only to rot in a surplusage beyond the current requirement? Nature is an economist of means and agencies.

D. Instead of limiting political economy to its usually assigned province, "the production, distribution, and consumption of wealth;" instead of confining it strictly to a system of exchanges of marketable commodities and other values, which has been generally held by the authorities in the science and in popular regard to cover at once the industries and the commerce of men in society, you make the general welfare of communities, in all their earthly interests, the subjects of its laws.

August Comte insists upon treating the complex relations of society in solidarity; but, I think, the most capable of his critics follow the analytic method, such as has been successful in the investigation of the inorganic creation, and even generally in the vital and moral departments of science.

T. I cannot think of a steam-engine in action by confining my notice to the coal or the water which give it its impulse. I must take the whole machinery of the assemblage of modifying and inter-dependent forces in all their relations. I do not believe that the measurement of a granary, the invoice of imports and exports, or the reports of the money market, make up the whole study of man's material conditions. I cannot sever him from his relations and dependence upon external things. Theoretical barriers,

set up by systematizers, between theology, ethics, politics, and industrial affairs, disintegrate the man. I accept all the ologies, held within their proper provinces, as tributary sources of information. A chemistry of man does not include his life. When a child breaks a saucer he holds the pieces together and says, "That's the way it was;" but the fragments lack their structural connection. I understand it better in its entirety, for in that the use consists and is manifested. I believe that Comte's method of treating the social functions and relations in the *ensemble*, has never been successfully refuted.

CHAPTER VI.

RENT.

T. Agriculture, being the pursuit that requires acquaintance with the most numerous branches of the natural sciences, if not the largest amount of knowledge in them, is necessarily latest of full development. It must wait for completeness, until chemistry, meteorology, vegetable physiology, and machinery shall have done their best for the uses of cultivation. As yet the relations of man to land are not availably formulated for the use of theoretic discussion. Some parts of this great body of knowledge are well enough ascertained for use; but even these are subjects of difference and dispute among economists; the strongly contested and most unsettled among its questions is the theory of rent. As the problem presses upon the thinkers and legislators of England it seems a gordian knot so difficult to untie with logic that it is about to be cut by the sword of absolute authority. The House of Commons has given it the first chop with the last argument—the battle-axe of force. The lords, for the present, protect themselves behind the shield of tradition,—a stern gun fired in a retreat,—that must end in a surrender. Such is British political economy applied! The theory of Ricardo under treatment has exploded, and all its elaborate justifications are in rubbish.

P. You have spoken of *economic* rent, by which, I suppose, is meant the theoretic or logical apportionment of the product of land to the owner and tenant, or farmer, respectively,—the distribution of benefits of invested capital and labor. In this respect agriculture is distinguished from the profits of other industrial arts, and from the fees and salaries of offices, and the rewards of the fine arts. I think this is the doctrine of the accepted authorities.

T. This doctrine is the subject of dispute. The authors to whom you allude put land upon a different economic basis from all other machinery of industrial production. They separated such natural and indestructible agencies in land as do not belong to any of the things that perish in their use. J. S. Mill holds that “the land of a country presents conditions that separate it economically from the great mass of the other objects of wealth.” He puts the difference thus: “Movable property can be produced in indefinite quantity, and he who disposes as he likes of anything which it can be fairly argued would not have existed but for him, does no wrong to any one. It is otherwise with regard to land, a thing which no man made, which exists in limited quantity, which was the original inheritance of all mankind, and which, whosoever appropriates, keeps others out of its possession, such appropriation, when there is not enough left for all, is, at first aspect, an usurpation of the rights of other people.”

P. Why agrarianism, in its extravagance, communism, and even nihilism, got a firm foothold here, and *Laissez faire* gets the go-by at the same time. Is English theory of political economy, like that of the French Proudhon, based upon the axiom, “Property is robbery?”

T. Property in land, you mean? If that property, though it be in fact like any other property, wholly due to labor and capital applied to its creation, is based upon a different right, or no right at all, the theory is answerable for the result,—it is no man’s land. Every occupant is an usurper: but, curiously enough, not of the rights of other people, for nobody has any exclusive right to any portion of it.

P. As you put the point, the *argumentum ad hominem* runs fairly into the *argumentum ad absurdum*.

T. I am right. Professor Cairnes* goes the full length of this logic. He denies a natural right of property in anything, "even in that which our hands have just made." "It is not right," he says, "that it should belong to us because we have made it; but it is *expedient* that property so acquired should belong to him who so acquires it."

P. What is the end of all this theorizing?

T. It has no end. It is compelled to reason in a circle. It is invented to support the proposition that, "in whatever manner the plans are made, that promise to be effectual (in amending the land laws of Ireland), they involve at bottom the principle of depriving landlords of the power of raising rent; the principle, therefore, of imposing on the State the obligation of saying what a *fair rent* is." I said these people reason in a circle. Professor Cairnes, like a mouse that goes in by the same hole he came out at, after a play in the moonshine on the carpet, hedges his theoretic venture by conceding that, "so far as the productive qualities of soil have been permanently improved, the added value rests upon the same foundation as property in corn, wine, or houses."

D. The evil of rack-rent (the full value of the premises, or near it), and of the unrestricted liberty to fix its amount, so severely felt in England and Ireland, must admit of some remedy.

T. And the theory of the economists must be reversed to admit that remedy.

P. What is the true theory of rent?

T. A safe basis may be found in certain fundamental propositions which are to be credited to the system of Mr. Carey. According to his doctrine land is a *machine* in functions and uses; it is under the laws which govern all the productions of labor and skill. Its so-called original and indestructible powers make no part of its exchange value. Its value is wholly due to labor, in the comprehensive meaning of the word. Postulating these propositions he proceeds to general principles, which are self-proved. There is a law of uniform relation between the *quantity* of capital employed and the *quality* of the labor in a community,—a law connecting every increase and every diminution of the former with

* Professor of Political Economy, University College, London.

a corresponding improvement and of deterioration of the latter. In other words, the active and passive agents in production are married together "for better, for worse,"—principles which are resolvable into the following corollaries:—Labor gains increased productiveness in the proportion that capital contributes to its efficiency, just as the inclined plane, lever, and screw augment the power of the hand that employs them. All the implements of the industrial arts, as well as food and clothing, are supplied by capital in the equipment of the laborer.

Every improvement in the efficiency of labor so gained by the aid of capital is so much increased power of accumulation, which grows usually as compound interest grows upon its principal.

The increase of accumulated capital resulting lessens the value in labor of products already existing, and brings them more easily within the purchasing power of present labor, for the reason that no commodity, however much labor it may have required for its production, can command the value of more labor than is required for the reproduction of the like thing, or its substitute at the time.

D. These generalities are entirely admissible ; but how do they apply to the value and to the rent of land ?

T. If all the advantages of land which command rent are due to labor in the last analysis, its price of value must come under the common law which governs all the other productions of capital and labor ; and the title to them is the same as that in all products of industry.

D. Admitting the government of these general laws, how does it happen that land prices and rents rise constantly with the rising demand for the property in, and for the use of them ?

T. To answer this question, I must call to my aid the true definition of value. It is the measure of the resistance which nature opposes to our command of the things required for our service. Now land under improvement is in proportion less reluctant, and in capability richer, or worth more. Principal value, thus produced, and rent are equivalents of the labor saved to the purchaser and farmer. These qualities of service are the property of the improver and of his assigns. They are the right and the reward of industry applied in bringing the subject up to its serviceableness to the degree attained. Enhancement of every good and

valuable thing increases its utility, and therefore, of right, commands a higher price, and a higher rent, wages, or fees.

Carry with you, in all reasonings upon values, the guiding principle:—Nothing can increase in principal or interest, in price or hire, but land and labor. These are the raw materials and the converting agency of all the physical means of human support, and they must rise in value as they grow in usefulness, under the reasonable law that in commerce we get nothing for nothing.

D. Commodities cheapen in price continually under improvement in production.

T. Values are uses, not things. Raw material rises in value as it is made more useful by labor; but commodities of every kind decline in cost as they are made more readily to decline in resistance to converting labor and skill. The machine costs the more as it is the more efficient, and its product costs the less as its capability enhances.

It happens, even in our disordered social and commercial affairs, that land and labor do enhance continually in exchange value, and their products as constantly abound and cheapen in all progressive commodities. The normal tendency of the laws to which they are subject, in such conformity as we witness, is the endeavor to evenuate themselves in the facts of experience.

P. Economic rent differs from that exacted by the monopolists of land.

T. As widely as the ten commandments from the morals of general society. A philosophy of disorder is simply impossible. A theory of the right and the true is a criticism of error and falsity, as well as a directory of conduct.

D. The ideal of societary order and organization—the rule of righteousness in human affairs—seems to recede more and more in the progress of civilization. Prophecy is not history, nor is it directory for the conduct of things as they are.

T. That conclusion is the necessary consequence of the doctrines you have accepted. But is it true? Is there no advance from the savage state to the civilization already reached? Do not the achievements of every decade assure the candid and capable observer of the tendency to better still, and better in an indefinite progression? Even the prevailing government of fraud in socie-

tary history is an improvement upon the old-time rule of force and still greater fraud. Savage morals allow the appropriation of the goods of other tribes, but we have something corrective in international law. We have a law that says, thou shalt not steal, and opinion and civil government do something to enforce it. The brute force of barbarism is its one sufficient warranty. Civilization recognizes the inviolability of the rights of others, even while evading its authority, just as hypocrisy pays tribute to integrity, and tends and works that far towards conformity. The societary system is not growing worse, but better, both in practice and in creed. The multitude are better clothed, fed, and housed than they were in the reign of Henry VIII. in England. During his reign he hanged 70,000 of the emancipated British serfs for offences against property, and incidentally against life,—crimes which destitution compelled,—a proportion of the population of the kingdom at the time equal to five executions every day in the State of New York now. Famine and pestilence were then inevitable and continuous. Education in the elements of literature is rapidly becoming universal with us; but, in the reign of Edward VI. (A. D. 1550), Parliament passed a law giving the benefit of peerage, equivalent to the benefit of clergy, to peers of the realm who could not read!—a change in favor of the present age, significant of a general amelioration of the changed conditions and vast improvement in the common life. Macaulay, in his *History of England*, vol. 1, chap. 3d, says that, as lately as A. D. 1685, “bread, such as is now given to the inmates of a British workhouse, was seldom seen even on the table of a yeoman or shopkeeper. The great majority of the nation lived almost entirely on rye, barley, and oats.” There was a time, not very long since, when a copy of the Bible was chained to the church altar for the perusal of the parishioners. Now a better copy can be had for less than the price of a half day’s labor at hod-carrying. Such and an infinite number and value of the changes for the better lies between the now and the then!

P. The sources of wealth, in general terms, are the gratuitous services of nature, made available by the capital and labor employed upon them.

T. That is a fair summary; but the knowledge, which is power, presses always inwardly and downwardly toward the elements and

basis principles of things. Generalities have excellent uses in classification; as, in the animal world, orders, genera, and species are indispensable collocations. The like service is rendered in the study of inanimate things; it bundles and pigeon-holes classes and kinds; keeps them within reach, and in an assortment that gives an easy command of them. But it is not enough to have general and common notions of things. The word metal does not make us acquainted with the differences between gold, iron, steel, lead. Science is knowledge pushed to elements and atoms. I have already stated what I take to be the contributing forces in the growth of wealth; not with the distinctiveness and exactitude of a technical analysis, but with such intrusions or overlappings of some of the divisions upon others as are likely to occur in their discussion. The method compelled by inquiry into social subjects is unavoidably that which Comte calls the *ensemble*, as opposed to the fragmentary, and, let me say, the distracted. Some of the factors in the growth of wealth, indeed all of them, in ministering to a common aim and end, interlock in operation. They should be considered respectively and separately, so far as their unity of service permits.

D. The process and the means of the acquisition of wealth should be judged and measured by their necessity and use in human life. Communist societies, by limiting the requirements, escape the disappointments of the people in our loose civilization. Supply, however abundant, only meets and satisfies demand. The growth of wealth only meets the growth of requirement; and where is the difference in results between much and little, if they that gather the little of the manna have no lack, and they that gather much have nothing over?

T. You mean that such communists as the Shakers and Rappites escape the panics and the bankruptcies of trade. They suffer no revulsions of business, simply because they have no active part in the societary movement. To the extent that they are separated from the live world around them, they are mere parasites upon it. The crazy world around them must build their railroads, and make their markets; and their content within themselves is only a smothering compromise of wants and means. Do they grow in their proper human nature under the forced repression of their natural

endowments, or do they only vegetate? They do not even reproduce, much less augment themselves. A clod or a stone grows only by accretion from without, not by development from within. They cannot even be said to be alive to all the purposes of life.

D. When you say that the race grows richer and richer at every advanced stage of productive power, you are only saying that they need and consume so much the more.

T. The royal preacher, who, from the "wisest man," turned out the biggest fool in Jewish history, said: "All is vanity and vexation of spirit." Like Samson, their strongest man, he ended his career of profligacy by covering himself under his own ruins. The proverb is handsomely capped by a better and truer one, "Every want becomes a pleasure when redressed," and "happiness is our being's end and aim." This happiness is best defined to be the gratification of our active faculties, and, of course, is in proportion to their number and activity,—the satisfaction or full supply of their demands. This is answer enough to the philosophy which limits itself to the boundary of a tub,—a wisdom that growls at progress, enjoyment, luxury, in the notion that they must end in effeminacy,—a sermon that turns into a song, with the refrain, "Man must work, and woman must weep, while the world goes round and round," for the doleful ditty has no idea that the world ever goes forward.

D. All useful production ends in consumption.

T. No, consumption is not the end, for it is reproduction. In a very good sense production is as immortal and imperishable as the producer. The food which you consume becomes strength of physical force and energy of mind. Well-being is measured by the consumption of aliments and all the supplies of our needs. Wealth does not consist in commodities, but in the service which they render. Productions of a people, which they do not themselves consume, directly or indirectly, are not wealth in its true ministry. Foreign exports, derived and subtracted from their creators, mark the condition of States "where wealth accumulates and men decay."

D. Of course I did not mean that any kind of power should be arrested in its infancy, nor even that "he that increaseth knowledge increaseth sorrow," but only that fulness relates to capacity ;

that limited needs are better supplied than unlimited. My obstructive objections are provoked by your way of treating familiar subjects. It is more difficult and a wider range of thought than the usual method. It is not so dull, especially when statistics are enlivened by indulgence in the romance of natural history, and in the narrative of common events.

T. The romantic in the study of nature is fully matched by the marvellous in the achievements of art. Look with eyes as wide open as wonder can stretch them, and as sharp-sighted as reflective thought can make them, at the achievements in progress and in promise among the sources of wealth—the supplies for consumption—the means of enjoyment—the mastery of nature. Take together the wonderful service of labor-saving machinery, and the resulting enhancement in the quantity and quality of the commodities of use. In some of these things the achievements of industrial art are marvellous enough to make the fictions of magic common in the facts of everyday experience. The magic carpet and the wooden horse of *The Arabian Nights* seem but the prototypes of the balloon, and the electric telegraph; the enchanted apple, which cured disease by its perfume, prefigures the infinitesimal doses of homœopathy; and sub-sepulchral spirit intercourse is trying to realize the old-time fairy interventions in human affairs. I do not assume the success of these supernatural enterprises; but I suggest that, probably, imagination cannot invent anything that enterprise will not at last realize. We grow by aspiring.

D. I am prepared for the annihilation of time and space, and of the theories of things governed by earthly conditions. But I have heard oratory and read poetry enough to look for something newer and more substantial in science.

T. Perhaps, then, we can find something new enough and actual enough in the old to deserve attention in the study of our theme.

Allow me to advert to the fact that the materials which must be made to answer our wants must undergo changes of form and place before they are utilized; and that, in such needed conversion and transportation, the forces of nature stand in resistance to the powers and purposes of man. Indulge me here if I say that something of the *super-natural* must be brought against this natural to

compel obedience ; and we look for something fitting in the instrumentalities we possess for the achievement of our victories.

Among the "mechanical powers" are the screw, the compound pulley, and the wheel and axle. Nowhere in nature is either of these found. Nature has the lever, the inclined plane, gravitation, and that form of it which we call cohesion, but these man has as well.

Now observe that the power of the screw, the compound pulley, and the wheel and axle are ultimate facts, measurable in force, but absolutely inexplicable in essence. Possibly they are resolvable into the force of the inclined plane, but how mysteriously modified and multiplied in efficiency ! There the miracle comes in ; there resides the delegated omnipotence and omnipresence of the Creator in such degree as answers all our ends.

D. The momentum, or force of motion, is well understood to be the weight multiplied into the velocity of a body in motion, and is capable of mathematical measurement. Where is the mystery of the lever power in any of its modifications which you claim to be *supernatural* ?

T. The power of the lever is effective *before* the velocity begins to exist or act, else the lever would not budge the resistant weight. How does difference in length of the arms of a lever generate difference of power in them ? When a pound weight suspends a hundred in motionless stillness, whence comes the momentum ; where is the impulse ? We supply *instinctively* the power between cause and effect. Dr. Thomas Brown, of the Edinburgh University, refused to use the words, because he could only infer efficiency, and he insisted upon using instead antecedence and subsequence, as the whole of what we can know of the phenomenon.

This is what I have to say of the agency of machinery in production ; I think it is quite as miraculous in the inanimate implements as are the vital powers of the soil. These energies are to me alike influxes of the creative All-mightiness.

D. We have heard of sermons in stones, books in the running brooks, and good in everything ; but a mimic or miniature omnipotence in dead machinery transcends the range of the inductive philosophy.

T. As it should, if man is invested with the sovereignty over

his material surroundings which stand in opposition to his dominion; if he is really created in the image of his Creator and Governor. I am tempted to quote a rhapsody of Paul de Saint Victor, which is not all a fancy—rather a simple truth, glowing with its proper fervor:—

“The imagination of an artist is keenly surprised at witnessing creatures of wood and metal imitate human actions with human intelligence. They are not living, but who can say that they are wholly dead? Mechanism is a mysterious transition between inanimate nature and organic existence. The breath of the soul has passed thereby. Pygmalion has conjured them up to breathe into them something of life and human characteristics.”

P. How do statistics exhibit the power gained by the employment of artificial labor?

T. If the hairs of our heads may be numbered, so may the works of our hands be estimated. When numerals run up toward infinity they become incomprehensible. Professor Rodgers, State Geologist for Pennsylvania, represents the dynamic value of fossil coal in such figures as these:—

“One pound of coal consumed in the improved Cornish engine gives the mechanic force which one man effects by a day’s toil in a tread-mill; and three tons as much power as one man produces in twenty years, of three hundred working days each year.”

Assuming that twenty million tons are applied per year to the production of mechanical products, it follows that England annually commands the aid of seven millions of fresh men, having the equivalent of their labor-power through a period of twenty years. The sum of this auxiliary force represents that of one hundred and forty millions of laborers. This for an island numbering but twenty-two millions of people, all told, and of whom there are not more than twelve millions of men and women between the ages of 15 and 60, is a stupendous productive force. It is safe to say that, in the use of coal, modern civilization supplements its natural labor-power with an auxiliary addition at least twelve times its own capabilities. I will not undertake to say how much the dynamic effectiveness thus developed from coal by heat is enhanced through the intervention of machinery.

P. I understood this measurement to be that of the power at a

dead lift against weight or resistance ; and it is probably more than matched by the velocity of the motion gained by the mechanical modifications in application, as in hammers, shutters, rollers, and wheels. These, under a speed like that of lightning, seem to stand still in a rapidity that defies the detection of sight.

T. Strength is sometimes combined with, sometimes sacrificed to, velocity. We have an example of such a compromise in the human arm, where the longest lever is given to the hand against the much shorter, in the nearness of the inserted motor muscle acting upon the fulcrum at the elbow. In the adjustments of forces to uses all forms of mechanism conform to their intention. Steam in harness has at once enormous force and a miraculous celerity. Yet its prodigies of power and speed employed in our service are instances of human command obtained and obtainable over *masses* of matter, and over time and space in the work of conversion and transportation. Over the *elements* and *atoms* mind is achieving control still more wonderful. The incantations of chemistry set free the latent forces of the material creation and rehearse its miracles in its re-creations. It compels the subject substances of our dominion to take all forms of use at the bidding of the spirit that masters its mysteries ; and, that which is most noteworthy in the present age, and most promising for the oncoming generations, is the practical application which follows so closely upon the heels of scientific discovery. Handicraft keeps company with its revelations. Material forces which in the olden time were neglected or feared, under the direction of machinery, in our day, grow as light-limbed and strong-handed as the thought they are intended to execute. Machinery becomes bone and muscle to the brain of science, and nerves and sinews to practical enterprise. Dead matter is made, in all its aptitudes, subject to the will of man.

D. You are making a fairy tale of the history of our commonplace industries.

T. Fairy tales were of necessity invented, in the early age of natural knowledge, to supply the felt deficiencies of natural philosophy. Influences out of the reach and ken of the senses required the agency of unseen spiritual ministries to account for the phenomena of experience. A hierarchy of angels, in both

the Old and New Testaments, represents this overruling providence, and our science is rapidly advancing toward the apprehension of spirit power in the wonder-workings of material things. Tyndall and Huxley are on the very verge of spiritism; not of its quackeries, but of its scientific demonstration, by the inductive method, which is as much compelled to look for adequate causes, as the *a priori* system is ready to supply them. Materialism is approaching that higher stage in its advancement at which, to divine the system of things, it must admit Divinity as an efficient factor.

D. Oratory in the exposition of purely physical affairs is intrusive and inconclusive. I think that your notion of Political Economy pledges you to find the benefits of its study in the welfare of the race and of the individual. This expectation is not fulfilled merely by showing or imagining what man can do or might do, but what through that he shall be and become.

T. You are right. Man is the object, external things with their conditions and relations to him are only tributaries. All that is claimed, or need be claimed, for the increase of the apparatus of production, is the resulting abundance and availableness of the necessities and the enjoyments of life; and, that through this ever growing abundance of supply there is a broadening diffusion of benefits and blessings. This describes and measures the increase of the general or aggregate wealth of a community: men better and better provided with the commodities which sustain their animal life; with the luxuries that refine it; increasing release from drudgery, and with the inducements and opportunities that come with these ameliorations for lifting man toward his highest possibilities and noblest attainments. When we come to treat the subject of the wages of labor, we shall be able to show how all these blessings tend to descend in larger measure upon the poor, yet, as well, to the rich; for they are not at all partial to any class of their beneficiaries; being providential like the sun, they are made "to rise on the evil and on the good, and like the rain, are sent upon the just and on the unjust." Matth. v. 45.

D. It may be admitted that the multiplication in quantity and quality of all the products of industry, except of food, is, by an allowable hyperbole, unlimited. But food is the staff of life.

Whatever be the possible abundance of other things, a deficiency or failure of nutriment is famine, disease, and death to all the forms of life, animal and vegetable.

P. Death in the midst of life and health alone prevents a fatal disproportion of subsistence in the world of the inferior animals. Why should not the rule and the remedy obtain in the province of humanity under the like conditions and with the same design?

T. Without handicapping your proposition with its startling moral consequences, which would make our earthly life, not a purgatory of trial and preparation, but a veritable hell of evil and disorder, I will try to meet your questionings by the rules of inductive reasoning.

In the first place, brute life and human life are not in the same category, as your assumed analogy places them. Notice the differences in endowments and manifest destiny. Not many of the inferior tribes have a family order, and none of them have hospitals, or other reliefs for their sick, or make provision for the failing strength and the incapacities of old age. The instinct that cares for the young is very general; but benevolence or filial devotion are not given to them. When their age of maturity is reached they show none of the affections which would relieve the sufferings or extend the life of their kindred. Their individual and social impulses and relations are fulfilled in the prime of their powers. They have no history teaching by example. They die intestate. Nothing in them or of them looks to the education or prosperity of the generations to follow them. The ultimate issues of their existence are in their subservience to the higher forms of life that environ them. They are by destiny the provender of their contemporaries. Violent, or what we would call premature death, is a *coup de grace* to them. The *end* of their animal existence is the fulfilment of its purpose and use. It is therefore illogical to infer from their rate and date of mortality, that it is a provision to remedy an excessive fecundity. The allusion in your argument is good for nothing if the cause of their premature death is found in their constitution and destiny. Perhaps only one acorn in a million grows into an oak tree. They are the food of other lives as well as germs of their own generation. Can you find any analogy between their apparent waste of vitality

and the infant mortality of our kind? In reasoning by analogy like must be compared with like. It is nugatory as to all the differences. The inferior animals are born into the order of their life. This very completeness of endowment and attainment before the education of instruction and experience clearly indicates the purpose fulfilled, and the incapability of further and better uses. Grains and fruits are capable of the propagation of their kind, but they are also provided for the sustenance of men and animals. Is the destruction of their vitality an accidental failure of provision for their maintenance? Unless man is a beast, the analogical argument which you employ is utterly irrelevant.

D. I can afford to yield the argument from an assumed correspondence of the subjects adduced; but, the facts of experience, the records of human history, are not impeachable. Men do suffer from deficiency of food, and even die of famine, and these prevailing facts and incidents of human life still remain to be met and disposed of.

T. Your premises do not cover all the facts and forces involved in the question under examination. The law regulating population must be understood and considered, before we can usefully discuss the relation of the numbers of men to the provision of food. I must, therefore, postpone your objections until we have inquired into the cause of the facts relied upon, if those facts do not explain themselves. The normal order of things is not always found in simple or surface appearances. The natural sciences are full of instances in which superficial observation is contradicted by deeper research.

D. All this is granted, but I still wait to see how the law of population can contradict its manifest operation.

T. No law contradicts its own operations. We must find the harmony and dependency of cause and effect here if we find the truth that connects them alike in natural order and in accidental disorder. This we shall endeavor in its proper place.

CHAPTER VII.

COMMERCE AND TRADE—SOURCES OF WEALTH.

P. It strikes me that Malthus, McCulloch, Ricardo, and Mill limited their observations to thickly settled portions of the earth, when they drew the broad conclusion of incapacity of the soil to support a constantly increasing population. It is clear enough that where the area furnishing the required food is small enough, their doctrine applies. The people of a village or city without other provisions than their little gardens yield, would soon starve. It may be answered that these despairing theorists had in contemplation whole islands and even large territories of civilized countries, with crowded populations, but does this liberal allowance of conditions exclude important auxiliaries which greatly affect their conclusions?

T. This thought brings up the contributions to the growth of wealth by foreign trade and domestic commerce. For instance: take the exports of cotton fabrics from England, which grew at a twofold rate in the decade 1850–60, over those of 1840–50. These constituted full three-eighths (38.3 per cent.) of the value of all her domestic exports in the year 1860; when her iron, steel, cutlery, and other manufactures of these metals, of which she had at home the raw material and the agents of conversion—these metallic exports amounted to only $11\frac{6}{10}$ per cent., or less than one-eighth of the total. Her imports of the raw materials used in the manufacture of cottons, silks, and woollens, that year (1860) were valued at $47\frac{1}{2}$ millions of pounds sterling. Their export value reached 75 millions, which gave her a difference in exchange of $27\frac{1}{2}$ millions ($133\frac{1}{2}$ million dollars)—nearly 58 per cent. of profit, exclusive of the 20 millions of pounds worth consumed at home. These three textile products from foreign materials gave employment to 700,000 laborers, whose wages supported nearly three millions of her population, and yielded, besides, a large profit to her capitalists, amounting, perhaps, to 15 per cent. of the export values. Add to these imports the vegetable and animal food, and a vast variety of miscellaneous articles of tropic

and other foreign production which her labor purchases, and it is probable that four-fifths of her resources come to her from abroad.

The United Kingdom has risen from one and a half to six thousand millions of pounds sterling in capital wealth since the United States sent her the first bale of cotton, in A. D. 1790.

D. Your protective policy in the restriction of foreign trade does not allow such a system of exchanges as has built up the wealth of Great Britain.

T. The true system of international trade allows of, and provides for, the exchanges of differences that are complementary; while it forbids the evils of domination and dependency. It allows for and embraces equitable and mutually advantageous trade for the nations conditioned upon a rightful adjustment of the several interests; otherwise, the natural rights of the several communities of the earth, and the harmony of the whole, are impracticable. But these equities of trade are not postponed till the millennium. Righteousness works through all disorders towards its own consummation, and is as wise and good at every stage of its progress as it intends in its ultimate triumph. A rightly regulated international trade during the periods of inequality of industrial skill is as profitable to the undeveloped as to the more advanced communities. It is equally necessary and advantageous to the less capable party so long as trade is not allowed to repress its natural growth; just as pupilage is beneficial to childhood duly directed to the prospective independence and self-government of maturity. The perfect law of liberty, which is also a law of life, authorizes and requires the full activity of all the powers possessed, all the capabilities attained, which can serve for the onward progress in being and doing.

When in the fulness of time universal harmony of interests shall be realized, and, all along, as it approaches, the exchanges of diverse climates and unlike industrial capabilities of peoples, will rightfully serve the good purposes of foreign trade, without its existing evils. Cotton, coffee, tea, and spices, which do not grow everywhere, must be imported for the use of those who need and cannot produce them. The trade in vegetables across climates is at once a necessity and a bond of union between the North and South. It is complementary and not competitive. It is a policy

of peace and of mutual prosperity. There is nothing in it of a war of interests. Protection is defence. It is not aggression or monopoly. But, of this more anon.

D. For the reasons that you allow a free exchange of those commodities which do not compete with or displace the labor and raw materials of an importing country, you would allow a free foreign exchange between the communities where a like necessity arises out of different degrees of productive power.

T. You state the accommodations of the rule something too broadly. I limit them to the *temporary* incapacity of the pioneer and earliest stages of societies, where there is neither the capital, nor the labor and skill required for self-supply, and where an exchange of raw for finished goods is profitable to the less capable peoples. A new people, poor and weak-handed, may properly give their timber, corn, wool, and their gold and silver ores for cloth, glass, tools, and machinery, so long as they cannot make them. But free trade, in its commonly intended meaning, is another thing; and, let me suggest, that it is in itself a misnomer. It means free *foreign* trade, which is a material corrective of its true bearing upon the question at issue.

D. If I were not so unfortunate as to be told that I am frequently out of time with my objections, I should have something more to say in justification of the principles and policy of free trade.

T. Excuse me for sometimes telling you that you are out of place. The conductor of a train must keep on the road, and to do this he requires the switch tracks connected with it to be shut off. Our baggage is checked for the through trip, and we must pass the junctions, leaving them to the way-trains, for which they are provided.

Domestic Commerce as a Source of Wealth.

D. Profit and accumulation of wealth by a nation, through its foreign trade, is easily understood; but how can domestic exchanges between the individuals of a community increase the common stock? The dealers, buyers, and sellers are a partnership, in which one can only gain at the loss of another. The business is only a distribution of properties, not an increase of the aggre-

gate. Two boys, shut up in a room, cannot make five dollars apiece by fifty exchanges of their jackets, shoes, and hats. These goods are worth no more at the end than at the beginning of their trading.

T. Huckstering and bartering are not commerce. Its true meaning embraces production and service, as well as exchanges. It does not consist merely in an alteration of the property-right in things which makes no change in their value, but in their creation, as well as in the convenience of their distribution for consumption and service.

The original sin, in the definition of political economy by the authorities which you follow, breaks out into actual transgression at every turn of the theory. It sweats out at every pore of its hide. Archbishop Whately boldly and baldly makes it, not a theory of production and exchange, but what he calls catallactics, or the science of exchanges; that is, of products after they have come into market.

D. Facility and accumulation, effected through "the division of labor," territorial and individual, according to capability, are prime features of the free trade theory.

T. Yes, that maxim of Adam Smith is followed and abused by his professed followers, until it produces all the mischievous effects of a falsehood. McCullough, a representative of the school, illustrates the division of labor as a supplier of the subjects of commerce; but, totally overpassing the commerce of home, he breaks at once into rhapsodies in admiration of foreign trade, in which everything is cheapened, everything is distributed, everything is first carried away from everybody, everything is carried back again, and trade grows prodigiously! Thus trade gives competition all possible play, for everybody is put to working with and against everybody; whereupon he concludes, with the enthusiastic outburst, "All is mutual, reciprocal, and dependent," which is quite as good a description of the mutualities and reciprocities of a chain-gang of convicts, or a bench of galley-slaves. But political economy is not a system of exchange values in market; it is a theory of the productive power of a people, and it is not cosmopolitan in its direct intention, but primarily national in its proper province; and only indirectly, though effectually, subser-

vient to the wide world's advancement in wealth. Mr. Carey rightly uses the word commerce for the exchange of services, products, and ideas *by* men with their fellow-men, with the least possible intervention of other agents; and he limits the word trade to the exchanges made by intermediates *for* their primaries, the producers.

P. What is the relative money-value of foreign imports to home production for consumption in the United States?

T. The home production is usually about twelve to one of the foreign imports. Moreover, we must not measure the Economic value or utility by the market prices of the products of industry and the supplies of traffic. In the United States but little raw material is imported—little that affords the further profits of converting skill, or employs labor and capital in reproduction. Nine-tenths of the imported merchandise go directly into consumption—expense, not accumulation of capital. The foreign wines and spirits, the sugar, coffee, tea, jewelry, and fancy dry-goods, like the toys and trinkets, do not take the character of manufacturing stock or materials; and such goods as iron, woollens, and cottons are not only expenses in their use, but they also displace the home labor which they might employ. I am thinking of the wealth-producing price of industry and commerce.

P. How are the accepted estimates of national wealth and of its growth made, and how far are these estimates reliable?

T. A damaging uncertainty in these calculations is in the want of assuring data. In the matter of foreign trade, custom-house reports approach the truth when quantities are given; but, when only money-valuations are reported, beside the wide fluctuations of prices, the frauds of undervaluations greatly increase the errors of fact; so that even among the items of official reports, there is a tickly-bender support for the footsteps of inquiry.

P. If the best authenticated statistics are so uncertain, we must look elsewhere for the evidences of the accumulation of wealth. The general prosperity of the people is a less exact, but a better, measure or indication of the changes in its condition. The fruits of industry and enterprise garner themselves in the acquired provision for consumption—in the actual supply of necessities and luxuries.

T. A pretty large acquaintance with, and, I think, a fair judgment of, statistics, makes me doubt their testimony on the subject of national wealth and its rate of growth. Statisticians are all afloat in their estimates of domestic production and traffic. The European authorities who have, or ought to have, the best means of information, make their estimates from the tax registers, such as excise charges, incomes paying an assessment, probates of decedents' estates, insurances, export values, investments in stocks, and the like indications of business affairs. On data so incomplete and so inexact as these, the calculations of experts are very far apart. General contradiction and confusion result from the differences in the methods adopted.

P. Of the United States, its population, capital invested in productive industry, value of its products, value of real property, amount of wages paid, the census at every decade gives us the official statistics. Is not this a safer guide than the English plan?

T. Don't be startled if I say I don't think it affords as near a report of the actual condition of our affairs. Read the notes appended to the census report of our industries for the year 1870, by the Superintendent, to find how little faith these official reports deserve, and the unavoidable causes of their errors.

P. If the figures of these reports have so little arithmetical value, how are we to form any judgment upon the subjects with which they are concerned?

T. Through years of diligent study I have innocently and candidly looked for the assuring results which the experts in the statistics of national wealth seemed to promise, and I have pulled up in the conclusion that arithmetical renderings are neither true nor necessary to the understanding of the subject. After all our investigations of particulars and elements of the great problem, wealth in substances, in property and in credit, in possession and in prospect, resolves itself into *welfare*. Means are only Uses, and I conclude that the condition of a community is best found in its capability of consumption. The dress and demeanor of our hirelings, the expenses of the common people, who do not go into bankruptcy, expenses in their festivities and enjoyment of leisure, the adequacy of wages to supply the necessities and comforts of life, the advancing intelligence and of elementary learning gene-

rally prevailing—in all the forms in which the effects of accumulation express themselves—are safer data than money measures afford for calculation. One can know a change of place and its difference from the point of departure by its circumstances and its scenery without measuring the distance in miles. Money values are not measures of the social situation. The loss and gain in the footings of mercantile accounts decide nothing of moment in the question of welfare. In that is found the real loss and gain of labor and trade.

Improvement in Travel and Transportation, a source of growing Wealth.

T. The cost of transporting food and merchandise between our Western and Eastern States, was in 1870 from a cent and a half to two cents per ton per mile. Now (1880) one of the highest authorities in railway matters says that five-eighths of a cent for the same service is perfectly satisfactory. The effect of this reduction in the freight cost is as though the grain fields and pastures west of the Mississippi River were moved bodily eastward to the longitude of Ohio and Western New York. If a quarter of a ton of bread and meat will feed a grown man in Massachusetts for a year, a single day's labor of the commonest kind will pay for the transportation of the year's supply of these provisions from a distance of one thousand miles; or one day's wages places the Massachusetts laborer next door to the Western prairies, a thousand miles away. I am old enough to remember that, in the year 1820, the freight-cost of mixed merchandise by a road-wagon, carrying about a ton and a half over the mountains of Pennsylvania, from Philadelphia to Pittsburg, 315 miles, cost in the spring season, when the roads were bad, eleven dollars per hundred weight, and required about thirteen days to make the trip. The freight at this rate was $3\frac{1}{2}$ cents per ton per mile, and the reduction of its cost effected in sixty years is more than 82 cents upon every hundred cents of the earlier expense. Observe that rates of freight vary with kinds, and are further and greatly varied by the circumstances and relations of the transporting companies. They now range so much as from a dollar and a quarter per 100

pounds down to forty cents. I think it is safe to say the cost of the transportation of goods 300 miles across the Allegheny Mountains has fallen in sixty years from say three cents per ton per mile to less than one cent, and the speed of delivery has increased more than ten times. A like rapidity of relative rate of travel and reduction of expense is not quite reached in the average, but they have been excelled in special instances.

D. How do these changes affect the growth of wealth in the community?

T. They increase the home value of commodities to the producer, and diminish their cost to the distant consumer; and, as wealth is the power to command the services of nature, the facility and the cheapness of sustenance must in proportion increase that power of command. The resistance of time and space are abridged and overcome, and the degree of the mastery obtained in the struggle measures the welfare of the victor. When Alexander Hamilton, at Albany, New York, and John Marshall, at Richmond, Virginia, were struggling for the establishment of the federal Constitution, it took five days with post-horses to carry messages between them. It could be done in five minutes now, and at a hundred times less expense. I do not insist upon arithmetical calculations of the rate or the amount of this progress, for numerals are not measures of its value. The highest good of life, even where weights and measures of material things are involved, is not expressible in dollars and cents. They serve only as measures of the substances which are factors in the process. The results are to be found in the moral and intellectual forces combined, which transmute them into a higher use in human welfare, as digestion gives life to material aliment.

CHAPTER VIII.

SUBSTITUTION.

T. For the purpose of bringing into review one of the most fruitful and ever-growing sources of wealth, I have chosen a phrase, not very accurate, but sufficiently distinctive to present its agency. I mean the power of improving our condition by substituting the better and more abundant for the failing supply, or, for the less serviceable subjects which we have at command at any time in the progress of our attainments. We have briefly noticed the provisions of this beneficent tendency, in the increase of labor-saving machinery; in the improvement of travel and transportation; in the vast increase in the quality and quantity of manufactures; in the rapidly growing yield of agriculture, both by improved cultivation and extension of territory, waiting for the growing demand upon its fruitfulness; in the aids and facilities of commerce and trade in the distribution of commodities, providing for the inequalities of product that occur in the diverse regions, and capabilities of soil and climate; in the almost miraculous helps of the natural sciences and arts in extending the dominion of man over the subordinate creation—all these provisions, actual and potential, in achievement and in promise. And now we turn to still another source of prosperity, entitled to special consideration: I mean the constantly increasing substitution, for the uses of life, of the cheap for the costly, the plentiful for the scarce, the inexhaustible for the failing, the better for the inferior, which is manifest in such facts of experience, among others, as I shall submit in proof of our general proposition, that, we are already in advance of the savage and all intermediate stages of civilization, and in full career toward the better time coming.

A few of the mile-stones that mark and measure the route of progress in human affairs are such as these: Within a few years gas, of mineral origin, with materials in unlimited quantities, has been substituted for animal oil in the production of artificial light. An equally good and greatly cheaper supply from water has been

secured, and only waits its time for general adoption; and electrical light, cheaper and better than either, is looming in the near approach of its common use.

For light and heat, and to meet the immense demand for the lubrication of machinery, and of the rolling-stock of railways, mineral oils have recently opened up in rivers from the interior of the earth, replacing vegetable and animal oils, which require so large a surface of soil, and so much labor in their production—a beneficence of provision in the matter of heat and light kindred to the inexhaustible store of fossil coal that comes to supply the relatively scanty and rapidly failing stock of the vegetable material. And still another, and equally great defence against cold, is afforded by the increased supply of clothing, and the improvements of domestic architecture. These together, ever-more increasing in abundance and cheapness, serve also, in a proportionate reduction of food, otherwise required to meet the waste of animal heat. These accumulating ameliorations result in the extension of the average life of a generation from about thirty to forty years since the beginning of the present century. I need not say how much of comfort, luxury, and leisure for the higher offices of existence they contribute.

P. A register of the aggregate benefits of such substitution of the better for the inferior means of subsistence, in all kinds, is grandly manifest in the comparative history of the race from savagery up to civilization.

T. You have in mind some illustrative instances?

P. In the history of the Iroquois, or “the Six Nations” of American Indians, I was surprised to find that at the time William Penn landed on the Delaware, these people, occupying the region extending from the Potomac to the chain of the Northern Lakes, and from Connecticut to the Alleghany River, did not number more than 2500 inhabitants all told. At the present time the same area contains and sustains 11 or 12 millions of people in comfort and abundance. Here there is no decline in the fertility of the land under judicious culture, and no death-dealing disproportion of sustenance to population.

T. The contrast is heightened by the fact that under the savage management of the soil, aided as it was by the food supplied by

the beasts and birds of the wilds, and the fish of the rivers, a thousand acres scarcely sufficed for the support of one man. Famines and their attendant diseases were of very frequent occurrence. These people were capable of a political organization, in essentials the prototype of our State and Federal governments. Their "Long Lodge" was a representative congress of its leading people, differing from ours mainly in this, that it gave a separate deliberative chamber for their women in joint council. Yet, with so high a grade of attainment in the policy of commonwealth affairs, they had so little government of the industries necessary to the growth and preservation of a people.

I think we have a clearer and stronger illustration in the authentic history of the Israelites, from the time of Abraham to that of Joseph. These people, through whom we have the law and the prophets, on which Christianity rests, were often compelled to draw their supplies from Egypt, which had a vastly better system of industrial production. The progeny of Jacob sold their inheritance, as Esau sold his, for a mess of pottage. A people that does not acquire and hold the mastery of their native *land* must go into slavery under those that do. In modern times they become a sort of serfs on their own soil. Their masters are in the foreign market, which fixes the price of both what they have to sell and what they must buy. A slave is one who is the subject of a power outside of himself. Independence is not a national flag or a document: it is a condition of life. It consists of current events of experience, not in written constitutions. The man that pays out all he earns to his employer lives in a rented house, and must travel up and down other people's stairs in the dwelling that he calls his home. Tenancy for a term of years, or for life, is not a fee simple or allodial estate. This is not economic independence.

P. A natural history of the process of substitution in the means of subsistence, even limited to an outline drawing, would interest and instruct one so new to the subject as I am.

T. Forest fruits in their seasons, and animal food from the forests, rivers, and air, are first drawn upon for food supplies. These, beside depending largely upon climatic influences, are secured at a continually increasing toil and vigilance, with a resulting decrease of yield. In this state of things the "dismal science"

apostles may find abundant proof of their theory. War, pestilence, and famine go even beyond their assigned remedial necessity in the restriction of population.

At a stage considerably advanced above the savage, animal food begins to be supplanted and reduced in temperate climates, and almost displaced in the tropics and semi-tropics, with gains proportionate to the substitutions so effected.

Exclusive animal food, where pasturage and prepared provender must be used, requires ten or twelve acres of land to grow the flesh-diet of one man for one year's consumption. One acre of wheat will support three persons, affording thirty-six times as much sustenance. One acre of potatoes yields the food of nine persons, equal to one hundred and eight times the nutriment produced from the breadth of land required to raise the equivalent of flesh-meat. In such ratios advanced and diversified agriculture multiplies the means of subsistence by the process of substitution of the abundant for the scarce; and in like degree, though varied in proportion, by all mixtures of these constituents of diet.

In the inferior animals we have a clear demonstration of the economy of a vegetable diet. The lion, tiger, bear, and other carnivorous beasts and birds, multiply slowly; while the vegetable feeders—the horse, domestic ox, and buffalo—increase their numbers immensely. These go in herds, while the ravagers of the living creatures around them roam almost alone in the solitudes which they make. The like observation applies to the butchers and the vegetarians among birds.

In apparel, as necessary to life as food itself, and among advanced communities, perhaps equally expensive, the vegetable flax and cotton supplant a vast amount of animal wool and silk. One acre of ground will produce as much of use in textile fabrics and furniture as a hundred will yield in sheep's wool. Of course I do not mean that any one of these substances should totally exclude its correspondent of a different origin; but that the substitution in some cases, and a mixture in others, prodigiously increases the total stock, adapts it to diverse uses, and brings them all more easily within the means of purchase.

P. So far as the mineral kingdom can be a resort from the animal and vegetable, the acts of substitution must extend the benefits of a graded progress, with a cumulative force of product.

T. The course of this process has a curious analogy to the inclined plane on a road-way. It begins or takes its first step by passing from the fruits that grow above the earth and the beasts that roam over it, to cereals that grow from it, and the roots that have their place and nutriment in its bosom. The next advance step is into the bowels of the planet, in which we find stores of wealth-giving materials absolutely inexhaustible; the respective supplies swelling from the transient and deficient, through the abundant and ever-renewing, till they reach the rank of the perpetual and the superabundant.

D. The depth of this series makes one dizzy, as in trying to measure the unfathomable; but tell us, if you can, how such latent potency in the materials of support affects, or can affect, the masses of men in civilized society. Something, much has been gained, but all along the needed, has been much more than was ever realized. However ample the store accumulated and in reserve may be, it is only the realized that counts in actual welfare.

T. To answer your question, how the unquestionable augmentation, already effected and assured in prospect, works for the benefit of those who have no capital but their labor-power, it is safe for the present to suggest that growing abundance must cheapen its subjects in the marts of exchange to all consumers; else what is the meaning of the maxim, "supply and demand," in the philosophy of your favorite authorities?

D. Cheapness is a relative term. It has reference to the state of the purchaser's fund, as well as to the nominal prices of the market.

T. That question involves the distribution of the products of industry among the several contributors concerned. This will be best considered when we come to the investigation of the history and the law of Wages, Profits, and Interest.

It occurs to me now that the operation of the law of substitution would be best exhibited by arranging the subject matters in the juxtapositions of a tabular statement where the eye would help the ear in apprehending it.

P. I have employed my leisure in an effort to arrange the correspondent substances, in advanced uses—the things supplanted

by improved uses of other things, increased in quantity and in cheapness throughout the process of what you call Substitution. I have arranged them in three phases of movement. First, from the animal to the vegetable kingdom. Second, from the animal and vegetable kingdoms to the mineral. And I have ventured to add a third transition from the animal, through the vegetable and mineral, to that territory of effective forces made tributary to the world's work which scientists call the Imponderables.

I submit the list for such consideration and criticism as it invites, premising that I am aware of its defects both in subjects and arrangement.

1st. From the Animal to the Vegetable Kingdom.

From animal food as a chief supply.	To vegetable food more and more largely mixed.
“ skins, wool and silk in clothing.	“ flax and cotton textiles.
“ skins in sails and cordage.	“ hemp and jute in cloth and ropes.
“ leather.	“ caoutchouc and gutta percha.
“ beasts and human porters.	“ the wooden canoe.
“ parchment.	“ paper of rags and vegetable fibre.
“ animal oils.	“ vegetable oils.

2d. From the Animal and Vegetable to the Mineral Kingdom.

From wood and peat.	To coal, gas, and mineral oil.
“ wood in houses, ships, bridges.	“ slate, brick, stone, iron, zinc, copper, tin.
“ goose quills.	“ steel and gold pens, and metallic types.
“ bristles in drawing.	“ steel gravers, metallic plates in photography.
“ translucent skins.	“ transparent glass.
“ feathers and hair.	“ steel springs.
“ horse, ox, camel.	“ iron locomotive engines.
“ wooden bow and animal string.	“ metallic gun and shot.
“ animal and vegetable manure.	“ lime, marl, gypsum.
“ animal oil and wax.	“ mineral gas.
“ wooden carriages.	“ iron vehicles.
“ bone and muscle in labor.	“ metallic machinery.
“ animal power.	“ heat of coal and expansibility of steam.

3d. From Animals, Vegetables, and Minerals to the Imponderables.

Electricity	substituted for	Living messengers and vegetable sails.
Galvanic heat	“ “	Vegetable and mineral heat.
Electric light	“ “	That from all tangible substances.
Telephone and telegraph	“ “	All other mediums in conveying intelligence.

FROM INFERIOR TO BETTER OF THE SAME KIND.

T. In this last class you have mixed actual achievements with possibilities, which advancement of knowledge and power will turn to certainties of experience ; and you leave partially unnoted, while travelling from one kind of substance to another employed in the same use, the constantly advancing substitution of the better for the inferior in the same kind of things. For instance, paper made into bricks, boats, and bags that resist fluids like glass. But the transformations, like the transitions of all substances in modern art, are almost infinite.

I think that the testing of propositions by diagrams, where that is possible,—by tabular statements arraying the contrasts and correspondences so as to see the relations of the elements concerned, is sure to unload the student of his prejudices and assumptions, and to stretch him to his proper work of knowing truly and thoroughly what he thinks vaguely or has learned trustingly and inexactly.

P. Do you detect any exceptionable things in my tabular statement ?

T. There are probably plenty of them ; some of which you will find for yourself every time you revise it. Lord Bacon promised a diagram of the order of the sciences, progressive and successive—a sort of table of their substitutions and superventions, but he failed—at least his editors have found nothing yet, either in his publications or manuscripts. So, cheer up, for you also are mortal. Looking out for mistakes in your happiest works, you may correct as you discover them. Since your infancy the accretions of growth have displaced the effete atoms of your physical frame ; yet you have grown several inches through

the changes and substitutions, and have preserved your identity and secured a good balance in the account of loss and gain.

I observe that you have not assigned water-gas to either of the kingdoms of natural objects. Naturalists have not found the territorial meets and bounds of the watery world. It exists everywhere, but resides nowhere. There is as much of it in the sky at all times as in all the rivers of the earth; it permeates all things that have anything of life in them. Chemistry decomposes it, and recombines its elementary gases; but, in the geography of the sciences it has no determinate location; like the aeriform and electric fluids, it is boundless. It is somewhat over-bold to call it a kingdom within our dominions; because we cannot yet answer the questions: "Hast thou entered into the treasures of the snow? or hast thou seen the treasures of the hail? Hath the rain a father or who hath begotten the drops of dew? Hast thou entered into the springs of the sea? Canst thou say to it, hitherto shalt thou come, but no further: and here shall thy proud waves be stayed?" (Job xxxviii.)

D. I am not sure that ignorance is bliss, though I enjoy a good deal of it. I am consoled when I hear my superiors acknowledge their deficiencies in the knowledge that is power. Moreover, Solomon says "he that increaseth knowledge increaseth sorrow."

T. That proverb was uttered by one who had a great deal too much experience in the worst ways of life. The wisdom of the creative Word is efficient for the control of the world. In the degree that it is attained, it brings its proportion of omnipotence with it. Reverence is due to the knowledge of nature. There is providential beneficence in its extension and diffusion. It is a reform force that levels upward. Its design is the adjustment of material conditions to social interests universally. If water-gas becomes available for heating purposes in the regions that have no coal, it will be a world-deliverer from industrial domination. The prophecy of growth in the useful arts, means the emancipation and enfranchisement of all men in the order of their capability and development.

CHAPTER IX.

POPULATION.

T. The distribution of wealth would fitly follow the examination we have given to the laws and the process of its accumulation; but a preliminary inquiry is involved in the question of sustenance adjusted to numbers—the law of population in its relation to supplies.

D. So far as the increase of population is concerned, is it not enough to know the natural, which is the possible of requirement? Harmony between the possibilities of food-supply and the possibilities of the demand for it must be the search, if conducted according to the conditions of the problem.

T. So the Malthusian school presents it, and they would be right if they had the truth of the factors; which they have not.

D. Then we are to have a dispute about the basis facts of the doctrine.

T. No, that school does not trouble itself with the facts. The difference is all about inferences from assumptions, as the debate is usually conducted. But let us begin with the facts:

Malthus and his followers assumed the rate of propagation, under natural law, to be a fixed quantity or measure of increase. This we deny in toto, with all its consequences. First, let us look at the surface facts as they present themselves, leaving disturbing causes for after examination.

In the sixty years next preceding the year 1860, the population of the United States increased very nearly three per cent. compounded per annum, or, at the rate of doubling once in every $23\frac{1}{2}$ years. The native white people, after deducting the immigrants, may be put at $2\frac{1}{2}$ per cent., nearly, per annum, at which they would double in every period of 27 years. Great Britain (Ireland excluded) doubled its number once in the last fifty years, but, allowing for emigration, the period would be reduced to 46 years, or, $1\frac{1}{2}$ per cent. compounded per annum. Prussia increased at very nearly the same rate— $1\frac{1}{2}$ per cent.; while France, but little affected by either emigration or immigration,

has been adding to her population in the same period, no more than $\frac{1}{4}$ of one per cent. per annum, requiring 277 years to double her numbers.

These instances are enough to exhibit the greatly varied rates of increase of people born and living in their respective countries, who are near enough alike to be classed together for comparison and for criticism of the assumed rule. Men differing from each other constitutionally and in local circumstances no more than the German and Celtic stocks in Europe, and their mixed descendants in America, are thus found actually to differ in rate of natural increase as much as 27, 46, and 277 differ from each other. Observe that we are now taking into the comparison only the most favorably conditioned nationalities; throwing out of the account the Irish and the Italians from the British and Celtic families.

It must be noticed, also, that these figures express the present current movement in the countries named. This is very far from the fixed general rate of doubling every quarter of a century proposed by Malthus as the natural law and result of the procreative function, and just as far from establishing a constant quantity, possible or actual. These are striking examples of a departure from the rule of inductive reasoning founded upon the facts of observation and experiment; and, at the same time, an instance of deduction based upon assumptions. J. S. Mill was right in declaring that his school of Political Economy "reasons, and can only reason from assumptions, not from facts."

Neither have the rates of mortality any greater constancy or universality. The death-rate varied in London in the period of 160 years (1685 to 1845) from one in twenty-three of the inhabitants, at the former date, to one in forty at the latter. "The ordinary mortality," says Macaulay, "in the 17th century was as great as a visitation of the cholera would make it in the 19th." Thus the main element—the very foundation of the Malthusian theory of population—is so greatly affected and disproved by difference in rates of increase in different places, circumstances, and dates. One of these circumstances is particularly unfortunate for the overpopulation theory—the population of London, when its death-rate was at the highest, was not more than one-twelfth of the number

that the city contained when their mortality was reduced to one-half the proportion of the earlier date.

D. You are not giving due weight or any weight at all to the great change in the sanitary, police, and charitable interferences that have come into use in the period mentioned.

T. I am presenting the facts which the Malthusians are bound to explain. Their constant quantity of births, as measured by the survivals, goes to pieces under the shock of statistics. Births are not everywhere registered, and nowhere accurately. The numbers of the living and of the deaths are much more correctly noted. The deaths in England, in the United States, and in France, vary not more than one or two in ratio to their total populations, while the rates of increase among the living differ immensely. England loses annually a number represented by 46 of its people, the United States by 45, and France by 44; while their respective rates of growth are as 46, 27, and 277 are to each other. Now how are the survivals accounted for by a uniform ratio of births?

D. I do not know the certainty of these facts.

T. Neither do I depend upon their arithmetical accuracy. They are carefully collected and registered, and are approximations near enough for the data of the inquiry. I leave them to engage the enemy's front, while I turn, by a flank movement, to attack them on their indefensible rear.

D. Do you mean to leave the array of fact for a better ground of assault?

T. Not exactly; I leave the adversaries to their conflict with the facts, and resort to a method of discussion which rests upon principles, which facts must follow and fulfil in the orderly procedure of natural phenomena. Neither the possible productiveness of the land, the water, and the air, nor the future rate of increase in the numbers of men, are, or can be, now ascertained. They are not within the range of arithmetical estimates; and the problems concerning them rest, not upon numerals, but upon principles.

D. If these principles are not found or revealed by the facts of observation or experiment, where are they to be sought for?

T. They belong to the province of final causes—the manifest design of the system of things of which the subjects are a part.

D. Does not all of natural science fall within the jurisdiction of the inductive system for data and doctrine ?

T. The inductive system itself is compelled to *assume* that the means are provided in the constitution of things for the accomplishment of the ends clearly indicated.

D. A proposition so sweeping as this asks for proof.

T. The Baconian, or inductive philosophy cannot advance a single step in discovery without postulating the law that the prophesy of an end, in all the realms of nature, is a pledge and proof of provided means. There is no other basis for the science of existing substances and forces. For examples:—An orbit with an apparatus of vision in a fossil skull proves a contemporary provision of light; a skeleton chest found imbedded in a rock indicates the coexistence of respirable air; the structure of a tooth teaches with absolute certainty the existence of a suitable kind of food at the time of its development. Design thus interprets and reports the conditions of things in the pre-historic ages. If this guide to the knowledge of nature is rejected, inquiry is nonplussed, and its study is brought to a stand-still; the history of the past is not traceable in its vestiges; and, outlook for the future has no direction and no results. So science, “the science of observation, experiment, and induction thence” builds its certainties as much upon the harmonies of the system of creation, and as confidently as upon the evidence of the senses concerning presently transpiring events. Thus far the matter-of-fact philosophy protrudes itself into the deductive. It gets to be the *a posteriori* by following the *a priori* through the whole length and breadth of its unquestionable teachings. Inquiry in the system of physical things, directed by the senses, in every last analysis runs aground upon ultimate facts, beyond which inductive reasoning cannot go. Its foundation is in its ignorances, and its philosophy is a science of *appearances*.

D. Considering the triumphs that the *a posteriori* method has won in the world of physics, you limit its province and its capabilities surprisingly.

T. No; I leave to the philosophy of materialism all its proper liberty and legitimate authority—the whole range of natural phenomena that the visible creation offers to observation; but the

central and supreme truths of things lie quite out of the reach of observation and experiment. The senses cannot compass them. They do not centre amid "the things that do appear." Their lines of induction focalize in the absolute,—the designs of the Creator. Design, otherwise, final causes, connects the end with the beginning, and therein alone is to be found the efficiency and dependency of cause and effect. All the potency which we ascribe to material things is an influx of apportioned omnipotence.

P. I understand you to mean that the inductive system, excluding any other data in its service than those which the senses discern, is not the sole rule of investigation or directory in judgment. You do not believe, with Aristotle, that "there is nothing in the intellect which was not previously in the senses;" or, with Locke, that "all ideas of reflection are formed from ideas of sensation."

T. No; we have ideas and ideals, that come not from observation or experience. Our intellectual and moral faculties are equipped with innate activities that have no patterns in the perceptions of outside things, or in any possible modifications of them. The mind and feelings have instincts, just as our bodies have. Our intuitions and inspirations are not born of our experience.

The inductive system abused—pushed beyond the boundary assigned to it by Bacon, and forced into a province of knowledge of which it is wholly incapable, has made wretched failures in ethics, politics, jurisprudence, education, psychology, theology—in whatever is in its nature metaphysical or supra-physical.

D. Is the law of cause and effect an insufficient directory in the explorations of natural philosophy?

T. Reflect. You are speaking of the connection subsisting between SECOND causes, in exclusion of the *primum mobile*, or first cause, in which alone power abides.

P. I cannot anticipate the application of your method of inquiry in the region of mixed material and vital phenomena to the question in hand.

T. It authorizes the logical basis of design in the creation as a starting point for discussion, which, as it concerns our present sub-

ject, may be embodied in this proposition: *The power of reproducing life is in inverse proportion to the power of maintaining it.*

In evidence: The insects of a day are produced in myriads. The animals, whose span of life is reduced to half a dozen years, are limited to hundreds of offspring. The higher grades, that live a score or more years, are in proportion less prolific. Birds and beasts that outlive our threescore and ten, add their evidence to the rule and its examples of a proportionately diminished fertility in the reproduction of their kind. This is the law as it obtains among *various* species of animated creatures. It provides for the continuance of races, and for the casualties to which they are respectively subject. So we find the law of their existence in its Design. I suppose that no one imagined that such abridgment of their terms of life has been interposed to correct a natural fecundity beyond the provision made for *their* subsistence! Absolute Atheism could not logically go so far. Even if creation was evolved by the innate forces of matter, its functions must conform to its necessities, else it would run into the confusion of chaos; order would be impossible; it could not take the form and movement of system, and could not be the subject of science.

D. You have said that the inferior classes of animals are born into the order of their lives, and are deprived of liberty, except in the degree required for accommodation to the exigencies of their existence and uses; and you have refused to admit analogies between subjects unlike in their nature and offices.

T. Very true; but in this case I have not pressed the argument beyond the intrinsic evidence. A general law rules among and over subordinate variations. Scientific classification admits species and genera. Their definitions being strictly regarded, reasoning upon them is just and safe.

D. But our problem is the application of your proposition to the life tenure of the human race through all its accidents.

T. Well, let us see whether we can carry the law in its manifest operation into the history of human life:—

In the savage, or barbarous stages of society, and in the earlier stages of what we call civilization—in all periods of disorder, past and present—the mortality of the race in early life is fearfully large. The bills of mortality report for our principal cities the

one-third of the deaths as occurring under the age of twenty years, and the newspapers record crimes against life and property, summaries of pauperism, instances of destitution, asylums for the sick, the blind, the insane, that seem to overtask the most active remedial benevolence, and to demonstrate a terrible deficiency of provision among the unfortunates of the masses. From such stagnant puddles as these it is easy to fish up facts, by the theorists of disproportion, to countenance their speculations. But these facts, so far as they show their meaning, prove our proposition,—the production of life is always in an *inverse* proportion to the provision for its maintenance. It holds its purpose through disorder, and endeavors to inaugurate its normal harmony. The whole of natural history demonstrates the rule that, where mortality is largest, fecundity is greatest. It is a shield like that of the fable, that has two sides for opposing knights to fight about, and the matter of debate is simply this,—is the provision of food defective, or is the existing rate of increase of population an abuse capable of correction, and tending to a harmony of demand and supply? The facts to be considered are broadly contrasted in the excessive fertility of the drudges of Europe and of the slaves of America on the one side, and the less fertility of the highest grade of society everywhere on the other.

P. At the Scott centenary celebration Lord Houghton said of the world's littérateurs, that they seldom leave descendants. England has no Shakspeare, no Milton, no Bacon, no Newton, no Pope, no Byron; Italy has no Dante, no Petrarch, no Alfieri, no Ariosto; Germany has no Goethe, no Schiller, no Heine; France has no Montaigne, no Voltaire, no Descartes. Of the men and women of great intellectual activity who have left no descendants the list is long enough to establish the rule. The whole number of names on the roll of the Peers of Great Britain and Ireland in A. D. 1873 was 473, more than two-thirds of whose titles were created in the present century. There are now extant of the peerages of the 16th century, only 12; of the 17th, 35; of the 18th, 95; no more than three date from the latter part of the 13th century.

D. There are exceptions to all rules.

T. There are no exceptions to true rules. Especially there

are none to the rules which are the laws of nature. Exceptions contradict and disprove rules. What they do prove is the falsity of the rules that admit them.

But I have something to propose now, that meets the question directly, after the manner and under the requirements of the matter-of-fact philosophy: It is found in the established laws of the human organism. The evidences of our doctrine fall into three propositions familiar to ordinary experience:

1st. The nervous apparatus of the various species of creatures, and of the various individuals of each species, vary with their respective capabilities of maintaining life—largest as they are longer-lived and more highly endowed.

2d. Fecundity is given in inverse proportion to the development of the nervous system—the largest least and the smallest most prolific. This observation holds from insects up to elephants, and in measure all the way up the ascent from the lowest to the highest grade of intelligence of kinds and individuals.

3d. Unequal and partial distribution of the total vital force among the organs and functions of the frame, maintained permanently, must be at the expense of those that are thrown out of use.

D. I am not sufficiently skilled in physiology to put these positions to the question.

T. Instances familiar to common observation will answer for proof. A good class-book upon comparative physiology will establish my first proposition; but I need not insist upon either this first, or even upon the second that I have given, for the sake of symmetry and completeness in the chain of evidences. The truth of the last fully covers the preceding two. This third proposition needs no other proof than its clear statement. If the sum total of the vital powers has any limit, the concentration of the individual's energy upon one, or one set of organs, must be effected by a diversion of activity from others. We see this in fevers where the excitement of the nervous and circulating systems is inordinately great, and the muscular and digestive functions are proportionately diminished or suspended. The same thing is true of every morbid state involving the frame more or less generally. Disease has been well described as a broken bal-

ance of excitement. But, directly to our purpose, inequality in the distribution of vital power is almost constantly exhibited in conditions quite compatible with general health. It occurs in all instances of intense occupation. We do not always look and perceive when we see ; nor listen and perceive what we hear. Intense attention to one thing forces inattention to others. In cases of permanent concentration, where the fixity amounts to a habit, excluded offices of the body and of the mind, dependent upon the organs which it employs, fall into incapacity by continued disuse.

The first deduction to be drawn from facts so obvious as these, is that no fixed and invariable quantity of action or of results can be predicated of any one or other of the distinct organic structures in the living body ; much less can the highest possibility of any one be taken as the common or average measure of ability in all times, places, and circumstances, as the *constant quantity* of the Malthusians unwarrantably assumes.

D. I see the drift of the limitation of vital force in individuals, and of the unequal distribution of action among the animal functions. The theory is so new in application to the subject under consideration, that I would like to have it further developed.

T. The trial of the doctrine tested by facts must be very briefly given :

That there is no uniformity, no constancy of results in the growth of population in the races, classes, and individuals of society, is apparent to observation, and proved in history. The whole range of the phenomena indicates a constitutional antagonism of action between the generative and nervous forces, with very great modifications of effect. For example : There is little antagonism between muscular and brain power where the latter is comparatively inactive, as in the drudges of the unskilled industries. The higher human endowments, the moral and intellectual faculties, directly employing the brain and the external senses in great activity, seem to be the special antagonists of the procreative function.

D. You are getting upon delicate ground ; but I am glad to have you upon *terra firma*.

T. Truth and use are the only clothing that innocence needs. Swedenborg happily illustrates the influence of receptivity.

Travelling in the spirit-world one day, he asked his angel guide to pluck for him a bunch of figs. When he tasted them he complained that he had got grapes instead. The angel replied, "I gave you figs, but you took grapes." Upon a perverting palate sweetness turns sour.

To pursue the facts and learn their meaning—it is to be noted that where the animal prevails over the intellectual and the moral, and in proportionate degree, fecundity increases; teaching, that the remedy for excess of population is not in this or that kind of food, in its abundance or scarcity, but in the duly balanced activity of the perceptive, the intellectual, and the moral functions of the brain and nerves. Such cultivation and employment of all the powers of body and mind as will secure their equilibrium will correct disproportion either of defect or excess in any of them. Evils resulting from conduct are abuses, and nothing else. Obedience to law is their prevention, infinitely better than curative treatment, which, by the way, is generally mere quackery.

P. The law of balance and counter-balance governing the nervous functions must have application as wide and varied as the manifestations of the vital powers.

T. It rules in the philosophy of history and contemporary observation, and it has an outlook of prophecy in it.

D. There are points in the history of the North American Indians that puzzle me, if I must accept your explanation of the brutal fecundity of slaves and other industrial drudges. These Indians are ignorant and indolent, enough to make them slaves of the lowest forms of animal indulgence, and besides, are under very slight moral restraints.

T. You have not finished their description. These Indians are hunters, followers of Diana, the goddess of the chase and of chastity—a significant combination. They are as broadly distinguished from the lowest class of civilizees in habits and occupation as in fecundity. They have a fiery, nervous temperament, they are, withal, stoics in endurance, indomitable, fanatical, absolute in will-power. Their fastings are as fearful as their feasting; they go from ungoverned indulgence to the extreme of abstinence; they are wilful, proud, arrogant, brave, revengeful; they are *the* chivalry in rough; *they* are the men who do die in the last ditch;

desperate in assault, cunning in defence, alive to their point of honor, and never unreflective, however devilish in battle or ruthless in victory. They are, besides, eloquent though illiterate, and are in brain-power incomparably beyond the ignorant of other races. In their character there is nothing infantile; it is monumental of past greatness in decay. All this indicates cerebral and nerve force that removes them world-wide from the unthinking and unreflecting hordes of men under the yoke of civil domination and social degradation. Slave implies privation and deprivation; savage, applied to this race, means the wild liberty of unshackled impulse.

The hunter life demands vigilance, alertness, sharpness of attention, of perception and reflection, which draw largely upon the nerves of the senses, and the coördinating agency of the brain. Perpetual inter-tribal warfare and individual duelling is another heavy drain upon the nervous system. Their whole life, in its practical bearings, with the unattractive condition and character of the subordinate sex, is extremely unfavorable to the intersexual affections. So understood, they are not an exception, but a striking example of the counterpoise of the passions.

D. I would not be captious; but I cannot help suggesting that there are a vast number of cases which do not seem to conform to your doctrine.

T. I think there is proof enough to establish it, if the apparently refractory instances were disposed of. To these seeming exceptions, for want of understanding them, I can only reply that the physical and mental conditions of parentage are but seldom known, indeed, are scarcely discoverable. Medical science is very far from fathoming the mysteries of procreation. To know them thoroughly would be to put them within the power, and subject to the caprices that would lead to terrible abuses. The Master of Life has not delegated such vice-regal authority here as he has over dead matter and its issues. It would not be wise or prudent in Providence to put into our hands an absolute government of life, death, and immortality. We can know enough of their springs of action for our necessary use. We must stop there.

D. So, we must leave proofs and exceptions to make their own compromises, on the ground, I suppose, that believers are not

bound to explain away, or to surrender to, apparent incompatibilities which neither they nor anybody else understand. You have still something further to urge, perhaps, as usual, how the faith in a social principle works upon the hope and the charity of human fortunes.

T. The prospective operation of this principle or law of counterpoise in functional inter-action of the nervous powers is an attractive claim upon our belief in it. Its promised issue in the amelioration of the fortunes of men is not too good to be true; it is too good to be untrue. Moreover, it offers an exploring and explanatory light into the existing disorders and their remedies. How is the disturbed balance between demand and supply to be restored? A satisfactory answer will be found in the tendencies of the forces at work under the government of the law, thus:

The changes in the forms and kinds of labor that are already in operation, and advancing with accelerated rapidity, promise a more and more complete substitution of artificial for natural labor. This modification of the agencies of industrial production, while it provides a widening employment of the varied capabilities of men and women, will be attended by a constantly increasing release from drudgery, substituting, all along, art and skill and thought for mere muscular force in its ruder forms; and, so, mingling mind with matter will become educational, developing, while employing the brain and nervous system, and thus more and more effectively counterpoising the lower animal impulses. It is among the masses of the people, the indistinct individuals of the lowest class, that the remedy is most needed; and here, we have in the very labors which they must pursue the opportunity and means for the happy working of this law of betterment. The process is, mind, ever more largely mixed with sinew in the production of the commodities of the labor market. Horses grow more valuable as they are released from the draught of freight and raised to finer and higher service; so, men and women remitted from the lower to the higher forms of labor become of more value to themselves and to the world.

We look now for better and better diffused intellectual education in the future, in the confidence which the present over the past inspires. Another source of brain development and an effective addition to its counter-balancing power:—Shall we have

an improved, a scientific agriculture, involving both animal and vegetable physiology and chemistry, practically applied, with something of meteorology added; helping on the one side to replenish the stores of sustenance: and, on the other, through intellectual improvement, to restrain the excess of requirement where it generally occurs?

Again—do we look for a progressive improvement in the morals of the masses, and a corresponding amendment in the administration of social, civil, and inter-national justice? This promise, also, carries the double aspect of correction in the aggregate demand of the consumers and in the economy of consumption. Moral refinement will give the required supremacy of the man proper over his insurgent animalism: and, its prevalence will at the same time check the waste of war, the misdirection of industry, by changing the abuse of its products into their proper use, from agents of death to provisions for life. In a thousand ways the future, growing, as the present has grown upon the past, presents itself in expectation as a restorer of that equilibrium among the activities of the human organism, on which depends a due adjustment of the living man's requirements to the material things appointed to sustain him.

D. But still the prevalent disharmony, which you admit, calls for some explanation consistent with the alleged beneficence of terrestrial arrangements. How do you meet the incongruity of the course toward the goal at which it is destined to arrive?

T. Perhaps there is a rude harmony discoverable now in what seems to deny it. The Malthusians regard the prevailing prematurity of death, in the present and past disordered conditions of society, as a remedy for an excessive production of life. That is the meaning of their preventive and corrective checks—abstinence from marriage, war, pestilence, and famine—all of them murderous in operation as in intention. But suppose we take the opposite ground, and see in the casual and partial excess of life a provision to meet and supply its waste in conditions which tend rather to extinction than to repletion and plethora. Surely the problem turns two sides into the debate. The burden of reconciling the ways of God to man falls upon those who find such contradictions in the policy of the terrestrial economy.

A summary of the conclusions from the law of population, as we understand it, may be put compactly into this form: The waste of human life in the past, and continuing in the present, is due to an abnormal preponderance of the animal over the intellectual and moral faculties.

That waste is not the corrective of a blunder in the system of the Creator, but results from an abuse of the reproductive function; and its casual excess is a provision for the waste incident to a broken balance in the system of human functions.

Population is self-regulative. In the organic offices of the human constitution there is a persistent effort, with a promised success, in the establishment of an equilibrium in the action of the individual propensities, and resultingly in an adjustment of supply and demand between sustenance and requirement in the relations of man and earth.

The moral of this theory is healthy, happy, holy, and, therefore, it is true.

CHAPTER X.

WAGES, PROFITS, AND INTEREST.

T. Having discussed the sources of wealth, the law of population, and the capability of the earth to supply sustenance to its inhabitants, we are next concerned to see what provision there is in the order of human affairs for the distribution of the products of industry among the several agents engaged in the world's work.

D. J. B. Say treats the causes and movements of wealth in categories equally symmetrical, comprehensive, and exhaustive; happily expressed as "The Production, Distribution, and Consumption of Wealth." It strikes me, however, that you do not adopt his formula, or provide for its method in the plan of our studies.

T. No; because I do not accept it. I was delighted with it when first I met it on the title-page of his treatise. It seemed so clear, so logical and complete: another "Rule of Three," like

that of proportion in arithmetic, that it promised a methodical and well-balanced system of study, by which the understanding could work out all the problems in its domain, as surely and exactly as clockwork measures the minutes of time, and announces their summaries "as clear as a bell." It promised to flash like an electric spark through the muddle of matters requiring analysis, to make every element in the chaotic mass dance up to its partner, and to organize all the individualities into clusters of classification, and so produce a science of the uncertainties which perplexed me. I had not a doubt that it pigeon-holed the puzzles of history, philosophy, and the affairs of practical economy, as in a cabinet of curiosities, ordered and methodized in the form of a working theory.

D. It seems to me that you expected too much from the programme of the title-page; and would, therefore, judge too severely the answering treatment in the body of the book. For which I am prepared by the irony not entirely concealed in the report of your first impressions.

T. I was young in the study; and I was too hopeful, because I was so hungry for the promised truths; I believed the promise fulfilled, the revelation oracular, the book of interpretation sealed, and all the subject-matters finally disposed of. But from this unquestioning acceptance there soon arose dissentients. The school began rehearsals, expositions, and illustrations; college professorships were established: political economy became a branch of the higher education; thence came a crowd of sects under the common confession of faith, making a mixture of doctrines, and a scattered collection of believers who do not believe each other.

D. You are sweeping with a new, a very new broom, so that one can see nothing clearly through the dust that you raise.

T. Raising a dust is the way to scatter it. The title of Say's treatise is a definition, a summary table of contents. In logic a definition is such a description of a thing as includes all that belongs to it, and excludes everything that does not belong to it. Now look at his fascinating formula—Production, Distribution, Consumption—a complete circle of movement ending in its beginning, going out at the same hole it came in at. Consumption is

not destruction or annihilation. Its economic meaning is reproduction; it is *use*, which is a very different thing from destruction. Ore is not destroyed when it is consumed in the production of iron; food is not destroyed when it is converted into bone and muscle. I need not multiply instances. Matter is indestructible. In every form of consumption there is only conversion. Say's third category is exactly his first over again. His triad of terms is thus reduced to a duad, and the last of them goes to the deuce.

D. You do not object to the colloquial use of the word.

T. Not at all. I object to the limited meaning given to it in logical description. Say never gives the word Consumption the proper or any force of reproduction. His entire definition of the agents and movements of wealth is lame in its primary proportion, and limps through the whole course of discussion. Owing to this fault his followers have easily converted his system into a science of exchange—a huckster's philosophy—and so it must be if the economic agencies end in consumption not regarded as reproduction.

P. You leave in the definition only two categories—production and distribution.

T. My objection to it goes still further, when used as the school employs and limits the proper range of the word distribution, by which they mean nothing but exchange of commodities in the market, never a due distribution of values among the several producers and contributors.

D. I cannot yield this point, so stated, without some proof.

T. The first testimony to the charge that “distribution,” in the meaning of the generally accepted and common use of the theorists of the Say school, does not intend division of products or their values between capitalists and laborers, and embraces nothing but the merchant function with its subsidiary agencies, is distinctly declared by Blanqui, who is an orthodox disciple of Say. I quote him: “The subjects which affect us so nearly at present, such as Wages and Population, seem scarcely to affect him (J. B. Say). He has considered production far too independently of the producers. He was seduced by the prodigies of English production, and did not think of the human suffering which follows in its train.

He looked upon wages as sufficient, not because they enabled the laborer to live, but because they kept him from dying."

D. Do you mean that this question is entirely ignored by the writers whose works fill the libraries of our colleges, and crowd the shelves of our students, scholars, and statesmen?

T. I do not say that they never advert to the subject, for I have already recited a striking and startling reference to it in the criticism of a capable and sincere admirer of the Treatise of the Great Apostle of the Faith. Let me give you another oracle: Ricardo, of at least equal renown with J. B. Say, in his "Principles of Political Economy," defining the natural price of labor, says: "It is that price which is necessary to enable the laborers, one with another, to subsist and perpetuate their race without increase or diminution."

There you have it, plump and plain. The fundamental principles of Say, Ricardo, Mill, McCulloch, Whately, Chalmers, and their American disciples issue legitimately in the like result. Their theory of wages accords just the care and provision for the animate, that it does for the inanimate, machines in production. Partnership-right in the commodity produced is not admitted. Wages, the *natural* wages of this philosophy, represents the share given to the steam-engine, wood, water, and repairs—so long as the thing is worth its feed or fuel and repairs. Chattel slavery is the ownership by the master of the body, and so much of the mind of the slave as is necessary to work the machine, subject to the incumbrance of maintaining the life and powers of the chattel in sickness and health, through infancy and old age. This economic theory of wages relieves the employer of all such ministries in misfortune, and of all responsibility for the incidents of the bargain.

D. This is revolting. The honored names which you have quoted for such an issue of their theories did not intend the inhumanity logically chargeable against their speculations; and there must have been protests, clear and strong, recorded against them.

T. Yes, there are dissentients, men of great weight intellectually and morally, greater, I think, than those whom they confronted in the field of speculative investigation; but they are not among the

current—do let me say, the vulgarly popular authorities: such men as Sismondi, Rossi, Droz, Blanqui, and Bishop Berkeley, and I do not hesitate to add St. Simon and Fourier. Of these men and their views of economic laws the common people never hear, and their works are all but strangers to the students in our institutions of learning.

There is, however, another form and force of protest. It is heard in the conventions of laborers and strikers, in language neither formal nor scientific, nor always wise nor wholly just. It is in the civil insurrections working like an earthquake among the toilers, angry at their wrongs. With these are joined the idlers who are busy stirring up the mud in the troubled waters; and, through the confusion of the wrangle is heard, not infrequently or ineffectually, the voice of the benevolent and considerate, who are attentive to the signs of the times.

I do not impeach the opinions or purposes of either of the parties to the great strife; I do not hold the insurgents inexcusable for the unwarrantable or the unwise in their manner of acting, I am only answering your question.

P. Is there no known economic law looking to justice, peace, and hope, and promising, if not already effecting, order in the movements of the commonwealth?

T. A general answer to your question is found in the manifest progress of society all the way up from savagism to the highest civilization attained. Some law or laws must have been working the amelioration in the condition of the masses that their history exhibits. In the savage state things are so far common to all that the allotment and title to property are determined by the simple act of appropriation and the power and will to hold possession. In this condition there is no such permanency of ownership as gives rise to a class of capitalists, and to the reciprocal class of laborers at wages. There is no system of progressive accumulation. Provision for use is a hand-to-mouth system of property. There being no surplus of production reserved, there is no industrial enterprise and improvement, in our sense of the phrase. Where there is nothing of capital and wages in the relations of men, there are none of the inequalities of property, and, none of its possibilities of better things to come.

Civilization grows through barbarism and all its own earlier stages till capital and labor attain a defined order, founded in expediency, near enough to natural right to admit and promote social and individual progress, but allowing great inequality in the condition of the joint contributors to the mass of the general wealth. But a just and wise allotment of the profits of industry is not yet anywhere attained.

D. In the vastly varied fortunes of the rich and poor, the better order of things encounters hostile interests, and the errors in civil and social administration derange the distribution of profits in freedom, even as they do in slavery. Yet I suppose that through all disturbing circumstances there must be a potential movement in the direction of individual, as well as of general welfare.

T. The field of research which you open is quite too broad for our present purpose ; perhaps, for our powers of solution. Let us confine ourselves to the question of wages, and the principles which seem to govern its fortunes. Mr. Carey meets it with the following propositions:—

“1st. Labor gains increased productiveness in the proportion that capital contributes to its efficiency.” This is self-proved.

“2d. Every improvement in the efficiency of labor so gained by the aid of capital is so much increased facility of accumulation.” This proposition also stands self-proved. Thus increase of stock, or fund, or wealth, is effected, and the means and inducements of equitable distribution are provided and made possible by the terms of the position taken.

“3d. The increased power of production and accumulation lessens proportionately, in labor-cost, the value of similar products previously existing, and brings them more easily within the purchasing power of present labor.”

D. Then labor must gain something not intrinsically its own by joint action with capital. How is that? It is commonly believed that labor borrows nothing from capital, but in fact, lends it all its gains.

T. A spade is capital to whomsoever it belongs. Labor gains all the difference of effectiveness from it that there is between its instrumentality and the service of naked hands. Let us under-

stand this thing. Labor and capital are not on a see-saw playing upon a fixed pivot or fulcrum, with a fixed range of motion allotted and circumscribed, so that one can go up no higher than the other goes down. They are joint actors, not antagonists. If two persons find a commodity ready made, any division of it to one of them is a reduction of the share of the other. But the laborer and the capitalist are jointly concerned in creating a new value—an increase upon the subject and service—of which each may have a share without robbing the other of anything that he independently owned before the effort made for the enhancement of the principal investment. If capital is increased with the aid of labor, and labor is made more productive by the aid of capital, the enterprise is mutual, and the accumulation is a joint-stock, to be distributed equitably, and there is no give and take in the division. Capital, in the last analysis, is garnered labor, it has been earned or acquired by its possessor and is his own. Capital has been happily called “dried labor.” This is not a figure of speech only, but a matter of fact, if the logical maxim is true—the cause is in the effect.

P. The first and second of Mr. Carey’s propositions are clear enough, but, for the third; how does increased accumulation lessen the labor-cost of commodities to the consumer? Of course the market price or exchange value will be reduced, but how are wages thereby affected; for it is the resulting distribution of benefit to the laborer that we are now concerned with?

T. A history of wages during the progress of advancing productiveness would answer this question, and answer it satisfactorily; but let us first look at the operative causes at work. Mr. Carey gives the first step in the solution by his definition of *value*, which in his rendering is *the cost of reproduction*; in effect, that nothing can command a higher price than the cost of producing a similar thing or substitute at the time of the purchase; and, accumulation producing increased cheapness of price, is the benefit of the consuming laborer, as of all other purchasers. The argument runs thus: The laborer must receive his share or wages out of the product to which he contributes—no other source exists. That possible share depends upon the quantity of the product. The larger this, the greater the fund upon which he

may draw. Here we have provision for enhancement of wages in due proportion with increase of productiveness (which, it is to be noted, is in part the fruit of the coöperative capital employed). This is the *possible* of his participation in the improvement of his own department of industry, and of similarly improved industries, whose products he needs for his use.

D. Let me interrupt with the suggestion that the capitalist is not only the owner of the product but of the labor which he hires or purchases; and, so far, has the command of prices. How does reduced market price effectively and necessarily operate to increase the price of labor? The forces are not only in the ability, but in the interest and the will of the capitalist, that influence the wages accorded to the workman. I do not see how, on business principles, the employer is forced or induced to divide profits so equitably, unless by strikes or public opinion invoked and enforced by social sentiment, and by the indirect influence of political power in representative governments—causes which do not come within the domain of natural law, and are not everywhere and always operative.

T. To say nothing of the reserve of compelling power that there is in the laboring classes to be feared or exerted in favoring circumstances, or, of the force of the sentiment and sympathies of justice embodied in public opinion, and which are not entirely inactive even in the conscience of the capitalist,—motive or motor impulse is found in such considerations as these:—The human machine, like the inanimate, and for the same reasons, yields results to the employer in the measure of its capabilities. Its highest condition is necessary to its highest service-worth. Over and above the physical energies of the one, corresponding to the structural powers of the other, the human worker has his most available force and producing worth in his moral and rational faculties, in his skill, his fidelity, and his ambition. The cultivation of these, up to their highest serviceableness, requires the opportunity of some leisure, the stimulus of current comforts, and the incitement of future hope. The best use of a man cannot be had upon wages barely sufficient for the lowest necessities of animal life. Even the owner of a slave must purchase extra service by extra remuneration. Rewards are as much the policy as they are the equity of business. The felt

force of these inducements is manifest in the wages and salaries of every kind of service. The ox has more brute force, and the steam-engine has more mechanical power, yet these are hired at a cheaper rate than the labor-market affords to the high human faculties on which capital depends for its largest profits. The ass knoweth his master's crib, and expectation quickens his movements toward it, but a man has the incitement of things and hopes beyond the clink of the corn-chest. Even when he sleeps his dreams are of the future. The employer knows all this and estimates its value. He knows that nothing is to be had for nothing, and thus the contributory effectiveness of the workman secures to him a growing dividend in the growing value of productiveness, which, indeed, is not all his own, or the result of his own agency, but without which the enhancement could not be made. The difference between the rates of wages and salaries, from those of the lower forms of labor up to the highest, exemplifies the natural operation of these considerations. When you can tell me why one man gets but one dollar a day for his work, and another gets five, you will have clearly read this riddle.

P. So, "there is a tide in the affairs of men which taken at the flow leads on to fortune." How about the ebb?

T. The law of progress rules in advancing communities. The retrograding owe their misfortunes to its violation, which is a negative proof of its truth. The law, whose operations we have noticed, rules in the policy of business. There is another law inherent in the nature of things, tending to the same issue—it is that in advancing communities nothing can increase in value but Land and Labor. They are both advanced in exchange and intrinsic value by the cost of their production, by the improvement of their quality and productiveness, with the necessary result that the products of both alike when they take the shape of commodities and services in exchange, regularly decline in price.

P. That sounds like a paradox.

T. It is not the less true and inevitable. Land, as the word is here used, stands for all the materials, and Labor for all converting agencies. Land as it lies in nature is a forest, a jungle, a morass, a heath, or a rock. It must be subdued to use, and it is valuable in the degree that it is subdued and improved. This im-

provement is measured by the labor-cost expended and reflected upon it. Thus, labor is incorporated with land, and they grow together in worth. They are inseparable in estimation as in service. Their products must cheapen in the ratio of their increased abundance. If an acre that formerly produced only 10 bushels is made to yield 40, and, if half a dozen hands can make as much cotton thread as 70,000 women can spin in the same time, the products must cheapen in proportion to their abundance of yield at the same cost of production. The substance of the land, and the man in himself, increase in value by and according to the costs of their improvement; and it is a general law that the most costly machinery yields the cheapest products. A railroad, with its bridges, engines, and rolling-stock, costs millions, but its service in transportation of men and things, in the aggregate, costs hundreds of times less than portage by men and horses. Not a dollar is invested in any sort of mechanism but with the view to cheapen its products. The effect of all improvements in the process of manufacture is to more and more overcome the resistance of the raw material and to diminish the cost of production. The advanced value of instruments and agents is encountered for the very purpose of diminishing the cost of their service. The diminishing value of products applies to uses, not to the instruments, whether human or mechanical. The effect of Progress is the enhancement of Power and increase of uses by subduing nature's resistance.

D. The effect of labor-cost in creating worth or exchange value cannot be universal.

T. You are thinking of the instances of genius and natural endowments, as they diminish the cost of acquirement by lessening the time and effort required to develop their availableness. But, if everything must have a cause, such specialties of capability have been preparing through past generations, and have cropped out in the present, just as the richer soils have been produced from the barren rock by the working of sunshine, air, and water through the ages. Nature works for us in the progressive improvements of her times and seasons, just as she does in the forces of the mechanical powers, *her* labor-cost in production, issuing in ready-made values to us. One thing is clear—the cost of reproduction determines the price of the extraordinary as well as of the com-

monest powers of men and things. At what price could Barnum reproduce a Jenny Lind? At the expense of educating a thousand students, and possibly with a failure in every trial. The fancy case of finding a diamond on the seashore at no greater expense than the trouble of picking it up, is an instance of trifling with conundrums, instead of exploring the natural course of law in constant operation; but even this favorite play at puzzles is not unmanageable by the fair application of the rule. That stray diamond is, perhaps, not overvalued by the cost of reproduction, if the logic-mongers were put to work to find another in the same way. Moreover, it will not command a higher price than the cost of washing for the like thing in the mines of Brazil. If there be any doubt that labor is the cause of all values, there can be none that it is their measure.

P. That the effective remuneration of labor must follow the accumulation of the general wealth is obvious from the immense expansion of the market for commodities. It is understood, upon safe statistical evidence, that, seventy years ago, the people of England consumed but one yard of cotton cloth per head, and that now they buy and use 35 yards to each individual. In all such cases as this wages have either been levelling up or prices have been levelling down, and the result is an increase of the purchasing power of the earnings of the industrial classes.

T. The general progress and improvement in the condition of things which we call civilization is evidence enough. Eight or ten centuries since the society of Europe consisted of a few masters and a multitude of serfs. The law that has worked through all the changes now realized still works for the elevation of the masses.

P. The "authorities," not finding any law of distribution governing in the relations of capital and labor, abandon it to chance, to competition, to "supply and demand." This irregular regulator has, in fact, great force in the practical settlement of the question; yet there may be some law running through all the attendant disturbances,—some constant endeavor toward a provided end and issue in harmony.

D. The process hitherto has been so slow that it may be suspected of lying almost dormant at times which most required its activity. The pauperism of the one-twentieth of the inhabitants

of Great Britain, as lately as in the year 1870; the compulsory emigration of some millions of the people, and the desperate condition of many other millions, stand as striking exceptions to the operation of your occult law of progressive betterment.

T. Slow, but sure, and vastly effective. Much of the old-time bondage remains, but much has been removed. The kingdoms of Europe are already in effect republics, governed by, as they rest upon, numbers, of which the industrials are the majorities, and these are learning to exert their power.

D. You admit that the wages-system is only an ameliorated bondage, and that the benefits of freedom are contingent upon circumstances not under control.

T. It has been wisely said that adjectives are the most dangerous enemies of substantives; and, let me add, that epithets are not safe descriptions. We don't speak of the disabilities of infancy and pupilage as modes of ameliorated bondage. That which is progressive cannot be described as fettered. The child is growing even while he creeps; he toddles insecurely, and often tumbles after he has got upon his feet; the youth is handicapped with his lingering childhood, but the laws of life are working in him, promising the full powers of maturity in due time,—that is, as soon as he is able to exercise them well.

P. The broad scope of history certainly proves a prevailing law of progressive improvement in the laboring classes of civilization.

T. In periods of years long enough to exhibit the current of this interest, however disturbed by its irregular ripples and incidental obstructions, its headway is marked by such measures as these:—

The wages of bricklayers, masons, and carpenters at Greenwich, England, in 100 years (from 1735 to 1835), doubled in money price (from 2s. 6d. to 5s. per diem).

According to William Penn's cash-book, to earn one ton of flour required the unskilled labor of 137 days; in 1834 (135 years after), the like labor earned the price of one ton of flour in 78 days.

In France, in the year, 1700, the annual wages of a family of 4½ persons is given by competent statisticians at the then price of

21 bushels of wheat—in 1840 at 60 bushels. In that period of 140 years, agricultural products of every kind quadrupled. The population was not nearly doubled, so that the distributive share in wages was very probably more than doubled.

The weekly wages of women in domestic service, in the United States, averaged $62\frac{1}{2}$ cents in the year 1814; in 1860 they rose to \$1.75, and now, in 1880, they range from \$2.00 to \$3.00 in money.

D. The purchasing power of money varies at long intervals; and this point is involved in the relative worth of nominal wages.

T. Let us try it upon the relative value of the wages of house-servants in the period taken—46 years from 1814 to 1860—dates which mark the rise from the lowest average to the time before our civil war, and the suspension of specie payments. I give it in tabular form for the better presentment to the eye, compared with the prevailing prices of the several commodities which the hireling needed to purchase with her earnings.

Weekly money wages in 1814	\$0 $62\frac{1}{2}$	Weekly money wages in 1860	\$1 75
1 yard of dimity . . .	$62\frac{1}{2}$	7 yds. dimity at 25 cts. .	1 75
2 yds. sheeting at $31\frac{1}{4}$ cts. .	$62\frac{1}{2}$	14 yds. sheeting at $12\frac{1}{2}$ cts. .	1 75
$2\frac{1}{2}$ yds. calico at 25 cts. .	$62\frac{1}{2}$	14 yds. calico at $12\frac{1}{2}$ cts. .	1 75
$2\frac{1}{2}$ yds. shirting at 25 cts. .	$62\frac{1}{2}$	$17\frac{1}{2}$ yds. shirting at 10 cts. .	1 75

Other articles of dress had fallen greatly in price, if not equally in the time. With the cost of food and lodging she was not concerned, except as to quality and comfort, which with many other conveniences, had in the mean time greatly improved. For general results look at the promenades in our streets, and the attendance at the churches. The difference between the appearance of mistress and maid, so strongly marked 60 years ago, has entirely disappeared. Moreover, the domestic servant has since learned to read, and does read the daily newspaper, as well as the lady who employs her, and is even a customer of the circulating library. How much of their earnings these women are able to contribute to the support of their churches and charities would be hard to guess, but it is safe to say that the aggregate is equal to the like contributions of the entire parish in which they live at

the beginning of the era of the rise in their money wages. The bills of exchange upon Europe, bought with the surplus of their earnings, amount to hundreds of thousands of dollars per annum in our largest cities. Ask their brokers for information as to this item, sent to their friends in the "Old Country," and in the "Fatherland."

D. You set the "Song of the Shirt" to a different tune; yet it remains a doleful accompaniment to the needle-woman's work in the common branches of their avocation.

T. Labor-saving machinery must answer for the difference in the fortunes of skilled and unskilled labor employed upon the same materials. The drift of events in all forms of production and service is evidently and necessarily the displacement of drudgery by art, the unintelligent toiler by the artisan, as the steam-car has displaced the pack-horse in the transportation of freight. Old-time uses must give way, if the progress of society is allowed, and whatever of them remains to continue the unequal conflict with the new, must take the consequences. There is no help for it. The new generation must live under the new order. The army that equips itself with the flint-lock musket of a century ago must go down in squadrons before the troops armed with the breech-loaders of the present pattern.

D. You have selected certain departments of industry, which by the record, have greatly bettered the condition of the employees. In some cases measuring the real value of money wages by the current prices of wheat, in others by the market prices of textile fabrics. Have you no data for a comprehensive presentment of the comparative total of income and expense?

T. I do not claim a verdict upon the items of evidence adduced. Wheat is one of the most uncertain standards that can be chosen for the demonstration of the debtor and credit sides of labor. It has ranged in England all the way from \$1.33 to \$2.20 per bushel, being often highest when wages were lowest, and always capricious in its fluctuations. It was down to \$1.14 in December, 1864, and up to \$2.21 in April, 1868. Besides, its advances and declines of price do not follow in calculable succession, as textile and metallic fabrics usually do; and the fluctuations of the other cereals are nearly as great. Such statistics as are at command

must be used when the argument demands them. At best, they are more or less approximations to the facts required. For this reason I rely on the general indications of economic conditions for the basis facts of the case.

P. I have occasionally seen statements of the wages of men and women in certain occupations with specified items of the expense of living. Do not such reports throw some light upon our subject?

T. The Bureau of Statistics of Massachusetts affords such a report for the year 1874, in which the earnings and expenses of 81 families are stated thus:

Average cost of living for each family . . .	\$885 62 for the year.
Average earnings of the fathers . .	\$619 18
“ “ “ children . .	310 78
	929 96

Number of persons in family, 6; number of rooms occupied, 5; number of children at school, 2:—Average.

P. These families appear to have but \$44.32 over their expenses at the end of the year. Not much margin for accidents or ultimate accumulation in that amount.

T. To estimate the avails of their labor look at the items of expense allowed.

Average cost for each family: Rent, \$146.58; groceries, \$350.38; meat and fish, \$108.28; clothing, boots, and shoes, \$114.65; religion, books, papers, and societies, \$23.18; fuel, \$51.19 (ranging from \$40 to \$70); sundries, \$33.76. Other conditions—nearly all the rooms carpeted; 40 houses have parlors; 40 families have sewing-machines; 13 have pianos; 3 have parlor organs; 16 have money in savings banks; 2 have insurance on their lives; 1 has a fine library; all well-dressed, except 1; 1 passably well; 1 moderately well; 1 poorly.

Of 124 skilled workmen, the fathers of families only, at wages. The average of the father's wages, \$746.15. These families average 4 persons each; 2 children at school; the number of rooms occupied, 5.

A Massachusetts employments' report for 1873 gives the number of males in the factories, over 16 years of age, 177,590 (64 per

cent. of the total); females over 15, 85,939 (31 per cent. of total); children, 14,075 (5 + per cent. of total); total employed, 277,654. The average number of working days in the year, 280; which leave 52 Sundays and 33 week-days exempt.

P. These figures do not serve to show changes of rates at intervals long enough to indicate the progress which you believe to have occurred in the last 40 or 50 years. Our census reports given every 10th year cover the capital, the cost of materials, the value of products, and the total wages paid in all the manufacturing, mining, and mechanic arts pursued in the United States. Why not try the changes between 1840, 1850, 1860, and 1870? These promise authentic data for the inquiry.

T. I have exhausted myself with many a day's labor upon these census reports, and have found them utterly useless, and even delusive, in the matter of the wages of laborers in the several, and in the whole of the avocations which they embrace and profess to exhibit.

P. I had hopes of certain and useful information from the official record.

T. So had I when I was younger in statistical studies.

These are the factors, or all the available data which these reports afford for a history of wages for the three last decades, 1850, 1860, and 1870:

Year.	Hands employed	Total wages.	Value of products.	Wages to products.
1850	957,059	\$236,754,834	\$1,019,106,616	23.23 per cent.
1860	1,311,266	378,878,966	1,885,861,676	20.10 " "
1870	2,053,996	775,584,343	4,232,325,442	18.32 " "

This statement gives the ratio of the total wages to the total product, but nothing of the relative amounts to either class of employees, men, women, and children—and nothing more specific for our use in anything else which the reports afford. The number of females is given for 1850 and 1860; and for 1870 the number of women and children, together, but nothing exact as to the different rates paid to the unlike classes, nor of the time employed by either of them, nor of the varied rates in the unlike employment of the individuals in the same classes.

Observing the decreasing percentage of the wages to the value of the products between 1850 and 1870, but finding the inference contradicted by all the other information attainable, I was at first inclined to attribute it to a transfer of producing power from hand-labor to the increase of machinery ; but there is nothing in the facts and figures given to support such an explanation.

There the wages of men, women, and children are lumped in statement, and the specific value of each is not given. What is gained by dividing a total value of products by the total number of mixed classes drawing very different rates from it? An expert put the compensation in 1850 at five-ninths for women to nine-ninths for men ; but this result was guess-work then, and far from a guide at any subsequent date.

D. Is the Census Bureau aware of these difficulties and uncertainties, and the resulting impossibility of comparing the changes in the rate of wages at successive decades, notwithstanding the elaborate details which occupy the reports ?

T. The superintendent states all these sources of illusion in his tabular statements, and many more equally fatal to the supposed worth and reliability of the returns made by the assessors to the central office. In particular, as relates to the relation of wages to products, you will find in the 3d volume of the 9th census—that for 1870, he is careful to exhibit the varied ratio of wages to products in five classes of manufactures, showing that in his 1st class the wages are equal to 51 per cent. of the value of the products ; in the 2d class, a little less than 25 per cent. ; in the 3d class, 31 + per cent. ; in the 4th class, 20 per cent. ; and in the 5th, only $3\frac{3}{4}$ per cent. In the averaged total of the five classes, $19\frac{4}{10}$ per cent.

Now, mass these items, not forgetting the difference in the number of hands of the several classes ; the differing rates of the different classes ; the different earnings among the men, women, and children in each group, which is not reported, and you will be able to pronounce an opinion upon the possible result to our special inquiry from such sources of information.

The superintendent goes further. He treats the report of the capital employed as falling short of the truth, probably to the amount of three-fourths of the actual amount invested. He pro-

nounces the value of the materials unreliable, and even of the products he shows that the totals given exaggerate the increase of 1870 over 1860 at no less than \$307,366,792,—nearly 8 per cent.

The wages column is rendered worthless and delusive by the circumstance that in many occupations the employers nearly equal the hired hands in number,—such as blacksmiths, shoemakers, tailors, millers, watchmakers, and the like. The labor of these people is not valued in the wages column. The superintendent remarks that, in 1870, there were about 20,000 of these artisans whose products are valued, but their work is treated as profits, and is not given as wages.

In agricultural labor the matter is still worse than in the mechanical, from obvious causes, which I need not detail. Wages paid and reported in this industry, whose products are registered as equal to all other occupations, are, perhaps, not equal to a hundredth part of the labor performed. Yet both are given in the census tables, and have their distorting effect upon the ratios derived from the totals so made up.

More than all these troubles, and at the bottom of all the incongruities, is the fact that many hundreds of assessors are employed in furnishing the returns for the equally numerous districts in the nation. They estimate quantities and values without a uniform standard, and with unequal capabilities and grades of fidelity. Beside all this, they have impossibilities to perform. The central office understands these sources of error perfectly well, and does the best it can to put its chaos of materials into order, but with uncertain success.

In full view of the case, the anxious inquirer must run the hazard of drawing inferences from the figures submitted for his guidance.

P. If such inaccuracy is inseparable from our census system in matters of wealth, I do not wonder that England confines hers to the enumeration of persons with their conditions of sex, age, physical and social circumstances. But how do their statisticians estimate the nation's wealth and its productive industries?

T. It is worth while in this connection to note their methods, if for no other purpose than for its implied criticism of our own.

Totally rejecting the process of actual assessment, and, as I

think, for sufficient reasons, they resort to such sources of information as these:—The tax registers; excise taxes upon domestic products and sales; taxed incomes; investments in stocks; probates of decedents' estates; fire, marine, and life insurances; rental of real estate; bank reports, and other indicia of business affairs. The distances which lie between such data as these, and the results sought for are, indeed, both dubious and considerable; but the process is the best that can be employed. Observe that they never concern themselves with principal values of any species of property, but with the current proceeds; rightly judging that wealth is in what property yields in the various industries, not in what it is valued at in speculation. This is what they mean by saying lands and stocks are worth so many years' purchase, from which, if you like, you may infer the capital value.

P. Do the authorities concur nearly enough to support their several calculations by the method which you think the better one?

T. No; they differ widely, taking, as they do, different bases of estimate. Gladstone takes the income tax for a measure of the growth of the wealth of the kingdom of Great Britain (Ireland being excluded), and thence infers that it is now being doubled in about 19 years. J. R. McCulloch recently adopted the exports with a very different result, and as widely different from his earlier estimate.

Colquhoun, the best and safest of these calculators, rendered the rate of growth in 1812 as doubling in 20 years. Pablo Pebrer, taking Colquhoun's estimate for his basis, concluded that in 1833 it was doubling in 21 years. Lowe and Porter, in 1841, put it at 18 years. Regarding the very different rate of increase between the dates for which Gladstone and Colquhoun made their calculations, they differ very widely, though their figures seem to corroborate each other.

The worst of all the estimates ever made was by J. R. McCulloch. About 30 years ago he committed himself to the opinion that "sixty years is the shortest time in which capital, in an old and densely peopled country, can be expected to be doubled." He was, during 35 years, *the* statistician of England; but the bias of his doctrine, that population outruns provision for the race, per-

verted his arithmetic, and made his deductions from his figures as fanciful as if he had not been able to count his fingers.

The basis of Gladstone's estimate—the income tax—is always, and in all countries, infamous for its falsehood. Lord John Russell describes it as a tax in which “inequality, vexation, and fraud are inherent.”

McCulloch's: The value or rather the official valuation of home products exported to foreign countries is quite as bad as Gladstone's. The fluctuations of prices that truly occur, the undervaluation of goods subject to *ad valorem* duties in the ports to which they are consigned, the indifference of custom-house officers to prices of merchandise on which no export duty is charged, with the tricks incident to foreign trade, make export values an exceedingly unsafe ground for calculation. Besides they take no account of, and bear no constant proportion to the home consumption of domestic products.

P. Have you no guess at the growth of wealth made upon the study of the estimates with which you are familiar?

T. I have made my calculations, and from them I *guess* that Great Britain is now, I mean since 1850, increasing her wealth at the rate of doubling it in 20 years, or $3\frac{1}{2}$ per cent compounded per annum; and that the United States double their aggregate wealth in 9 or 10 years, or 8 per cent. per annum. The increase has been twice as rapid in both countries in the decade ending in 1860, as in the previous one ending in 1850. The more careful treatment of this subject must be deferred till we come to consider money and prices.

D. The conclusion of the whole matter then is, that we have no reliable data for a correct judgment of the progress of wages, reported officially or given by experts. What other evidence have we that is satisfactory or worthy of dependence?

T. I cannot measure welfare in money values. I cannot reduce the rewards of labor to dollars and cents, and, of course, I cannot show the figures of arithmetic for the advancement of its benefits. But the current of civil history at every epochal wave in its onward flow proves it beyond cavil. The people, as distinguished from the old-time ruling class,—in all countries that have been under the influence of the advancing centuries and genera-

tions, have risen from bondage and its poverty to that power in social rank and civil government that deserves to be called freedom. Their supplies for their daily wants and their opportunities as social beings have increased immeasurably.

The distribution of accumulating wealth has tended to still better and better provision for the masses. All its forms and fruits have been constantly descending to the lower social levels. Education, the useful and the fine arts, the luxuries of sense and sentiment, step by step with their general advancement, have been dispersed and divided among the many, in even larger measure than to the few. If we subtract the idle, the criminal, and the naturally incapable from the supported and dangerous classes, the merest fraction of the population will remain to impeach the general prosperity. An immense proportion of our citizens have acquired fortunes by their labor and current opportunities of profit.

The improvement made in labor-saving machinery in the past, and most remarkably in the present time, has the effect of cheapening commodities for general use, and by remitting the industries from muscular drudgery to the useful arts, presses up the lower strata of society faster and better than all the moral and intellectual aids, usually relied upon, could effect without these economical helps.

All these things are the outcome and the expression of the increase of wages. The people have *worked* out their redemption and enfranchisement. I do not attempt to express these achievements in numbers, or their enhancement in percentages, for I do not know the money value of the qualities of manhood, though I am sure that they have their uses there also. I can recognize and feel the difference between a slave and a sovereign, but the figures of arithmetic do not serve to express it.

P. I wish you would give us the general issue of the facts and arguments you have employed, as they apply to the history of wages in our own country.

T. I believe that wages of men doubled in money value in the 46 years between 1814 and 1860. I take 1814 as the date at which steam-power and modern machinery were introduced in manufacturing processes in the United States; and I fix upon 1860 as the time when nominal prices had not been disturbed by

our Southern rebellion, producing the suspension of specie payments. A period long enough to embrace the ordinary, or I may say, the natural changes of time and circumstances ought to be taken into the inquiry into the governing laws of the subject. Fluctuations through long periods, usually settle themselves into an equilibrium that represents their undisturbed tendencies; and my general conclusion may be thus expressed. With the growth of wealth and population, the power of combination increases with a corresponding increase in the power of accumulation; every step in this direction being attended by decline in the power of the already existing capital to command the services of the laborer, and by an increase of the power of the latter to command the aid of capital, and—

The *proportion* of the increased product assigned to the laborer tends steadily to increase, while that of the capitalist tends as regularly to decline. The *quantity* assigned to both increases—that of the laborer, however, growing far more rapidly than that retained by the capitalist.

The *tendency* to equality is, therefore, in the direct ratio of the growth of wealth, depending, as it does, upon the productiveness of labor.

I infer, also, from a review of all the facts and tendencies of the forces at work, that wages are the index of productiveness, growing and declining together in all changes that occur to them. These conclusions I must leave with you for such investigation as you may be able to give them.

D. The admitted inaccuracies of the census reports concerning the capital invested, the cost of materials, of labor, and the value of the products of our manufacturing industries, and the like errors in the department of agriculture, seem together to be so great that I wonder why Congress has persisted for about 40 years in requiring the assessments.

T. These reports, notwithstanding their unfitness for the uses which I have designated, have a certain value and an important one. However inaccurate, they serve to indicate the *rate* of progress made from time to time. The errors balance each other, and the sums are approximations to the truth. I have adduced their respective deficiencies to warn you against the averages and the

percentages which they are made to afford ; and, by the way, let me say that the summarizings and clusterings of averages and percentages are a common vice of the statistical renderings of particulars, and the conclusions drawn from them are almost always erroneous, and often fraudulent. You must use them, but, beware of them. One added to 2 is an increase of 50 per cent. ; 50 added to 100 is the same per cent., but a very different quantity. So the average of 1, 2, 3, 4, and 20 is 6. Here the most irregular of the numbers has the greatest effect upon the average, and really gives the most erroneous idea of the series.

CHAPTER XI.

MONEY.

T. What is money ?

P. Please don't ask me. It seems to be a muddle and a mystery. The prevalent discussions of the subject are another confusion of tongues. The common apprehension is, perhaps, only a definition of words, but not a logical description of the thing. It is vaguely called a medium of exchange—an equivalent and representative of the value of other things—a standard and an expression of value. The precious metals, which are “the money of the world,” are held by some to be the only real money, and the true measure of all their substitutes and representatives ; calling the former coin, or metallic, and the other, credit money. Money taken in some of its forms has an intrinsic value, but in all its forms and uses it seems to serve as a counter or computer without any regard to its substance. Permit me to put your question to yourself—what is it ?

T. Metallic money is no more the standard of values, no more their representative, no more real money, than many another commodity, nor than any of its substitutes in use. Coins are not even “the money of the world” in the sense of having a fixed and uniform exchange value everywhere ; the metals in them have a

market price where they are used, and that price is as changeful as that of any other commodities.

As for the substances which rightfully take the name and serve the uses of money, some of them are and have been such as these :—

Moses expressly calls slaves money. The Anglo-Saxons called slaves and cattle living money, to distinguish these mediums of purchase and payment from the metals in use, which they called dead money. The American aborigines employed as a medium of exchange variously colored shells, which they called wampum. The native Africans, and some of the people of the Asiatic islands, still use shells, which they call cowries. Cod-fish was, not long ago, the current money of New England; and tobacco was that of Virginia. The ancient Romans expressed and exchanged values in cattle (from which we have our word pecuniary); and the Spartans at one time adopted iron as money.

All these were as veritable money then and there as the precious metals have been, and are, elsewhere and at other times. So you see any commodity may be a medium of business exchanges, and is evidently valued at the cost of its production. This definition is, therefore, not a specific designation or description of the thing so named.

P. Although money, whether “real” or representative, is nothing certain as to its substance, it is always a medium of exchange, effecting indirectly what the primitive barter does in the commerce of property and services, and is always a standard of value.

T. Money, consisting of, or representative of, any substance whatever, cannot be a standard of value, as weights and measures are of quantities and dimensions. Yard measures and pound weights are ever the same in length and gravity in the same latitude all round the earth. They are standards absolute. Gold and silver, so far from being standards for other things, do not even hold any fixed relative value to each other. Within a score of years gold has been in the money market as $15\frac{1}{2}$ to one, and again as 18 to one of silver by weight. Thirty years ago silver, in the London market, was worth 60 pence per ounce troy. Since that time it has been down to 48 pence, and is now (1880) at about 52 pence. Has gold risen, or has silver fallen, through this range of change

in price? No matter now which. Either or both of them, or any other thing may be a standard of payment of debts by the arbitrary appointment of municipal law; but this is a very different thing from a standard of exchange in property and services. The civil law must, of necessity, determine what thing, and how much of it, may be exacted from debtors, but cannot direct how much of it shall be paid for a bushel of wheat or a yard of cloth. Bank of England notes in Great Britain, and greenbacks in the United States, are legal tenders under the law, and business people conform to these arbitrary regulations of the currency; nevertheless, the commercial value of the precious metals, coined and uncoined, is fixed by their cost of production at the time, and the varying demand for their use in the arts; subject, also, to the influence of speculation incident to trade in them as commodities. The intrinsic, or bullion value of coins, differs more or less from the nominal, at which they pass in trade by tale; for, in all places other than in the respective countries that fix their weight, fineness, and names, they are matters of merchandise, and subject to all its fluctuations in prices.

D. I have learned, in the course of our discussions, to avoid answering your question, What is money?—expecting, at every turn, a cutting-up criticism of the opinions which I try to represent. Yet I venture to express some surprise that you allow us no standard of exchange value, none by which to compute the worth of property, the growth of wealth, or of equivalents in the vast range of business transactions.

T. Allow me, also, to be surprised that you imagine any such permanency of a standard of valuation in the exchanges of commerce and trade. In essence and in action these exchanges are only modes of barter, for which there can be no standard, as there is no medium. Standard, forsooth! Why, there is none for morals, for taste, for rights, or for duties, either permanent or universal among men, and, governing their relations or opinions. Social commerce is ruled by an ever-changing measure. In these exchanges there is nothing unchangeable, nothing absolute, or even perfectly known. They are all relative to conditions which are neither universally the same, nor constant in character anywhere. It is enough that they are wisely adapted to the passing

time and its special circumstances. Two pence (estimated at about thirty cents of our money) was the amount of advance made by the good Samaritan to the host for the entertainment of the sick and wounded man that fell among thieves; and two hundred pence (\$30) was estimated by the Apostles as the probable cost of a dinner for 5,000 people in the desert of Judea. Try your money standard upon these instances!! Or, later, and much nearer our own time, the average money price of horses in England, in the year 1696, was \$12.92, in American gold of the year 1870. The horses now are something better for use and for style, but apply your exchange gauge to them now at say \$25 each. You might as well measure a flying cloud on a windy day with an elastic string as estimate money values through the changes of time, place, and circumstances to which they are subject.

P. Compared with other commodities, gold and silver have cheapened greatly in the lapse of generations, and they have considerably changed in relative value to each other and to the standard by money of account or nominal value.

T. In the year 1066 the Tower pound of silver was coined into 20 shillings (hence 20 shillings are still equal to £1 in computation). These 20 shillings were equal in weight to $18\frac{3}{4}$ shillings of the Troy pound adopted in 1527. The Troy pound has since undergone three changes by coinage; thus, in 1553, it was coined into 60 shillings; in 1600, 62 shillings; and, in 1816, 66 shillings. So, in 800 years, you have the Troy pound weight of silver more than trebled in nominal value,—that is, if you had contracted a debt in 1066 of twenty shillings, you could pay it in 1866 with less than one-third of the weight of silver intended by the bargain.

P. The effect of this change in the nominal value of the metal is, that the burden of old debts, especially national debts, is lessened in the proportion that the medium of payment cheapens in labor-cost. There is blessing in that process. The increase of a nation's wealth, and of the reduced labor-cost of the money in which its debt must be paid must, in the progress of time, greatly lessen the burden of its debt.

T. Yes; more than you might think. The interest of the debt of Great Britain, for instance, was 10.21 per cent. of the annual

product of its industries in 1816 ; and, in the following 65 years, has fallen to 4.15 per cent. So you see that old debts like other things wear out as time progresses. They carry the same name-figures while they last, but they shrivel with age. Principal sums at interest have been supposed to burn on like the bush that Moses saw in the mount, burning without being consumed. That is a mistake. They were made by converting consumable things into money of account, but there is no necromancy in the transmigration. They, also, are things that perish in the using. A man, by securing it for himself, expects to make a 5 per cent. investment exempt him and one successor from labor forever, because if 5 per cent. yields them a sufficient support, the principal has something of immortality that does not fail of a perpetual yield in the course of time ; but, if that nominal 5 per cent. declines, with the declining value of money, his successors will have to be something better than sleeping partners in the world's business.

D. It results, then, in the economy of earthly affairs, that though interest eats like a canker it is itself eaten by its own rust.

T. It means that the world's progress is not to be fossilized or crystallized for the benefit of its slow-goers and idlers. Money is a fruit of labor ; unused by the owner for the power of service in it, he must not complain if it withers in the presence of the ever-growing activity of live labor.

P. The increase that has occurred in the production of the precious metals would throw some light upon their change of value, for of course the more abundant the supply of any commodity the cheaper it is.

T. Stop there. It is not simply abundance of things, having intrinsic value, that affects their market price. It is the labor-cost of production that rules their exchange value. Abundance and scarcity of supply are only the indications of the variance of labor-cost.

With respect to the yield of the mines, it will serve some purpose to look at the reports and estimates of the accepted authorities.

It is believed that in 350 years (from A. D. 1500 to 1849) the product of silver amounted to 6625 millions of dollars, and of gold 3100 millions, the relative value being taken at $15\frac{1}{2}$ to 1 by weight.

Starting with the discoveries in California and Australia, it is estimated that from 1849 to 1873, there were added to the product of silver 1550 millions, and of gold 3350 millions. To resort to better ascertained and more accurately reported increase during the latter period would not help us to more definite data, for that would only be comparing a tolerably accurate report with an estimate that is merely conjectural. These statements give us an annual average product of silver 19 millions, of gold 9 millions in the 350-year period; and for the later period of 24 years 65 millions in silver and 140 millions in gold, per annum. These reports well enough indicate the vast increase in production now going on. It shows an aggregate for the recent movement of 205 as against 28 in earlier times.

Humboldt, writing before the California era, estimated the metallic money circulating in Europe at more than 30 times greater in the 18th than in the 15th century. And he put the annual importation from America into Europe from A. D. 1492 to 1500 at only \$250,000 yearly; but from the year 1750 to 1810 it had grown to \$39,900,000.

The production of the mines of the world is greatly variant from year to year; and the relative exchange value of gold and silver increases the variance of price. Remember this in all your calculations.

It is estimated by some writers that three-fourths of the gold produced is used for coinage, and one-fourth in the arts. The guesses made at the like uses of silver are scarcely worthy of notice.

The Director of the United States Mint in 1879 thinks that one-half of the gold and one-third of the silver annually produced from the mines, is consumed in the arts and manufactures.

CHAPTER XII.

FUNCTIONS OF MONEY.

T. Let us now turn to the functions and the forms of money. In its offices it is to be regarded under two distinct aspects:—As an Exchanger of values, and as capital, or a Producer of values. Money, used to represent the value of other things in exchange, is to be considered merely as counters, computers, or numerals; but, acting as capital, it is a producer of values as any other commodity is. In the former office it is described by Adam Smith as “dead capital.” As an exchanger it is a transporter of property; as capital it is a producer. In either case it is not dead or inactive.

D. When a mill, a plough, or a dollar is idle or unemployed, may it not be called dead to all intents and purposes?

T. Smith speaks of money in use—his phrase is dead *Capital*. A true definition of death is the state of being incapable of action—“there is no work or device in the grave.” False and defective definitions are full of mischief.

As a medium of exchange money is an agent, not a subject. Its agency intervenes in commerce just as labor-saving machinery is employed in the production and transportation of commodities, and under the same necessity. Change of form, including properties and of place, is all the power that man has over matter. Time and space are overcome in changes of ownership by the use of money. In the existing conditions of society traffickers cannot meet as in other times, to exchange their surplus of productions. If some representative of values, capable of fitting itself in amounts to all desired exchanges, and always commanding them, could be found, the aims and uses of commerce would be accomplished by such an instrument; and it would be at once an instrument of barter in things and of association in the community of the dealers. This predicament suggests the familiar medium called Money; money in all its kinds, serving in the same uses; Coined metals, substitute and representative paper—Money of account—Credit money of all kinds, each answering in its turn better than any other in circumstances specially adapted to its use.

D. Then you call the instruments in use, whether they have an intrinsic, or only a conventional value; whether of gold, shells, circulating notes, drafts or any other evidence of debt payable which is suitable for negotiation, money.

T. I use the generic term for all kinds, and add specific designations when I have occasion to distinguish the substances of which they severally consist. In all uses of the word, with or without specific prefixes, I am justified by the axiom that things which are equal to the same thing are equal to each other. Describing things by their kinds and differences is not a false or doubtful theorizing, nor a begging of the question in any dispute about them.

P. Among the things used to represent values of other things, gold and silver have long held the precedence. Is there anything of foreordination in this preference, and in the rank commonly accorded to them?

T. No; their adoption is due to their fitness, and their use is prescribed by such fitness; when they shall fail, and as they shall lose adaptation to their use, they will and must lose the rank which they cannot fill. Some of their qualities are specially adapted to social conditions, which more or less lack business organization, and where credit is incompletely established. Their use in such primitive states of society, while it relieves some of the burdens of simple barter, or hand-to-hand exchanges, still preserves its spirit. No trust, no postponement of payment, no credit that can serve as capital. They are the commerce of savages, and its chief instrument in barbarism.

P. But they maintain, to a great extent, a high estimation in civilization. To what qualities are they indebted for such eminence among the mediums of business transfers of property?

T. 1st. They have a certain approach to constancy of value, because the cost of their production does not vary much within the periods that private contracts for payment usually run, or changes of prices usually occur.

2d. They have an intrinsic value. They are not of questionable solvency. They are the medium of international trade, that is, of paying its balances, and are not subject to depreciation except from natural causes. As there is no faith in their use, so there is no liability to its violation.

3d. Their scarcity and high cost of production have the effect of compacting large value in small bulk and light weight, as compared with other substances which have value in themselves. Precious stones, indeed, greatly excel them in these respects, but in others they are altogether unfit for currency. Their capability of storage and concealment are advantages added to their portableness, though they are in large amounts almost unmanageable.

4th. They are very durable, losing nothing by rust, fire, or water. They waste by abrasion, and have been known to lose as much as ten per cent. of their substance while yet in circulation, but they are in a good degree defensible by alloys of cheaper and more durable metals. They are liable, besides, to the frauds of counterfeiting, clipping, sweating, and punching. To some of these risks they are quite as much or even more exposed than are the ordinary forms of credit money. The balance of security, however, is in their favor.

5th. Their very best and most indispensable quality is in their divisibility into very small portions, and their capability of restoration into larger ones, with scarcely any appreciable loss. The real service of money in all forms and amounts, resting in its convenience, the eminent divisibility of the precious metals is their chief recommendation for service. This point is made impressively clear when small coins are withdrawn from circulation in a suspension of specie payments. The lack of five and ten cent pieces is a greater inconvenience than the absence of five and ten dollar pieces, or bank notes. Banker's checks or drafts can be made to answer in payment of large sums, but we have seen the community driven to the use of postage stamps and horn tokens upon street-cars, and for small purchases. With a three cent piece we buy an infinitesimal portion of the labors of hundreds of heads and hands employed in the production of the daily newspaper. The fractional currency enables us to avail ourselves of the supplies of our daily and hourly wants. In this service coins have an indispensable office. They hold their place in this most useful though less honored work. They are fast being displaced in the wholesale and larger retail business of the time. The rule of fitness or convenience governs in the choice of instruments in commerce, as in all other things.

CHAPTER XIII.

MONEY AND PRICES.

P. Does, and how does, the quantity of money in circulation affect the prices of other things,—in an arithmetical or other calculable proportion? In this question lies the trouble that theorists are usually engaged with.

D. If the laws of trade maintain equivalence of value between commodities and services, and the money by which they are estimated, and which is exchanged for them, the one must equalize the other, or “supply and demand” mean nothing operative upon prices.

T. But how would it be if the money in use, of whatever kind or kinds it may consist, is at no time a representative of the mass of values in the commodities and services in business exchanges? Would, then, the greater or less quantity of the medium, as it is called, of itself determine the exchange value of everything in market? Money is called a mystery, so much so that none but the least skilled in its laws assume to know all about it. And a great deal of mystery is added to the subject by the “ready-made-easy” method of settling its theory.

For example: It is held that the total amount of money in circulation represents the total value of all the property bought and sold. This affirmed equivalence, however, is not proved, but is absolutely disproved.

David Hume, following Montesquieu, 80 years ago, produced this thoughtless assumption; and, among others, John Stuart Mill adopted it in the last edition of his work on Political Economy. Mill says: “The doubling of the money in use would do no good to any one; would make no difference, except having to reckon pounds, shillings, and pence in greater numbers. It would be an increase of values only as estimated in money;” and he goes on to say that, “if the whole money in circulation was doubled, prices would be doubled. If it was only increased one-fourth, prices would rise one-fourth.”

D. If this be an utterly untenable opinion, it is not a little strange that such men as Montesquieu, Hume, and Mill should make the same blunder.

T. Hume and Mill both did know; and elsewhere, when treating of the relation of supply and demand, explicitly contradict it in respect to money. They adopted the notion that money is a measure of value, and forgot that, as an exchanger, it does not lose the character of being itself a commodity, subject to the law of labor-cost. With them it was an abstraction, an idea, as weights and measures are, and they did not advert to the fact that pound-weights and yard-sticks do not enter into the transfers of things which they measure and express, while money is one of the things exchanged. Hume does not correct his misjudgment in this matter, but he abandons and contradicts its doctrine, and becomes eloquent in stating the changes which an increased influx of this supposed mere counter of other things effects upon the activities of business. He perceives that it is no longer a fixed equivalent under all differences of its amount, but becomes a wonder-making stimulus to industry and commerce. In the same essay he says, "when money flows into a country, everything takes a new face, and labor and industry gain life;" that "it is easy to trace the money in its progress through the Commonwealth, when we shall find that it first quickens the diligence of every individual before it increases the price of labor;" and, again, he assures us that, when money decreases, the people suffer, and "poverty, beggary, and sloth ensue." Nevertheless he affirms that "the quantity of gold and silver is in itself altogether indifferent"!!!

Mr. Mill, discussing the effects of excess and deficiency in supply of other things, knows very well that gluts do not proceed in cheapening, nor deficiencies in enhancing, prices in arithmetical proportion. He is made aware that a ten per cent. deficiency in the supply of wheat raises its price, not ten, but thirty per cent.; and that, falling to one-half or fifty per cent., the price will go up to an advance of 450 per cent. Yet, when he is talking about money, he makes it go like clockwork over equal spaces in equal times upon the dial-plate of the market rates!

D. I wish I could understand how you understand the law of

supply and demand in its application to prices, for it certainly has some force.

T. Doubtless. Esau sold his birthright for a mess of pottage. His need had a life and death urgency. I do not deny even so wide a range of operation as this in the pressure of conditions upon prices. But I do not admit that things stand still to be compared, computed, or valued against the assumed money counterpoise. There is set-off, effecting a hundred-fold more exchanges than employ anything that can be found in the money supply, such as drafts, bills of exchange, and mutual debt settlements. In the clearing-house of the London banks the balances do not exceed five per cent. ; and these insignificant balances, though payable, are not actually paid in money of any kind. An eminent banker of the same city, with operations extending to millions of pounds sterling, shows that less than three per cent. of these immense sums employs coined cash, and not more than five per cent. of bank paper. (See Appendix A.)

Furthermore, the gold, silver, and paper money of no country in the civilized world approaches the values exchanged in its markets. Our money of all kinds, never before the great Rebellion, reached beyond 400 millions of dollars, and a considerable part of this amount was not in active use at any time. Probably, if the reserves in banks and in private hands were subtracted, not more than 300 millions would be left upon the business market. But the annual products of industry were worth at least 4000 millions, of which, if only three-fourths were bought and sold, and another thousand millions' worth of real estate changed ownership by bargain and sale ; and still another thousand millions were paid for professional, educational, personal, and artistic services, we have 5000 millions to be paid and received by means of 300 millions of money, or by one dollar for $16\frac{2}{3}$ times as much in exchange values. Thus the see-saw equivalence between money and property on sale is as absurd in theory as impossible in fact.

D. You have counted the money only once in bulk, but one piece of money serves in many payments, and is thus multiplied in work, perhaps, on the average, $16\frac{2}{3}$ times.

T. I have also valued the commodities and services in the total. These pass just as often as they are sold and paid for, as the

money does, which keeps their exchanges even in number and values.

D. Excuse my dulness of apprehension. It seems to me that you divide the cash paid in cash sales into the total of the cash and credit sales.

T. Which shows that the cash employed is only equal to something less than one-sixteenth of the prices to be met, and must have just that much less than the ruling power ascribed to it by the authorities quoted over all prices, as they affirm. So far as it is a medium of payment it can operate only upon the prices of things which it exchanges, and can have no effect whatever upon those in which it has no agency.

Let me now call your attention to the causes of fluctuation in prices, which act independently of the money supply: Miscalculations of dealers as to existing and prospective supply and demand; influence of seasons upon agricultural productions; prophecies concerning the coming harvests; changes of taste and fashion; legislative enactments in the matter of domestic taxation and import duties; political events with their effect upon trade; excitement or depression in the condition of other countries connected with us by an active trading intercourse; profusion in good times and contracted indulgences of consumers, when rigid economy is compelled; speculation in the markets, which never allows prices a rest at their natural rates. These, and a multitude of such influences of the passions of men are constantly in play upon things in possession. To them must be added the disturbing agency of the producing industries, such as new and cheaper means of manufacture; cheapening effects of substitutes; larger or smaller products from the mines, soils, and waters; cheaper transportation; new or enlarged markets opened abroad—all of which are ordinary events. The occasional, are wars either at home or abroad, with their blockades and embargoes.

Will any one, who comprehends in any tolerable degree the force of these operative causes, undertake to measure their activity and various degrees of intensity, so as to say that he can duly value the whole of them or any of them? Especially will he, in the face of this complex array, credit the money in use with an overruling and exclusive control? As well might the problems of astronomy

be solved by the state of the weather, as those of prices in trade by the quantity of active currency, or the state of the money at command by the ever-changing market rates.

P. We are familiar with the effect of monopolies, such as that of the French government in the tobacco trade, a mode of taxation upon consumption which enormously enhances its price in France, and greatly reduces it to the American producer. The high tariff rate upon it in England has the like effects, which in neither case depends upon the stock of money in either of the countries engaged in the trade; and, it appears to me, clearly, that things and movements so largely governed by opinions, passions, hopes, fears, and the casual necessities of life, cannot fall within the rules of arithmetic, or of comprehension, or prediction, as the business affairs of beavers and bees probably are to them. The doctrine of an exact equivalence and counterpoise of money and trade values is as symmetrical as logic can make it, but it bears no relation to the facts which it is thought to embrace and explain.

D. When people think of prices, is not the medium, the currency, in which they are expressed, constructively present; and if so, is not the stock or fund of money potentially involved and operative in the valuation?

T. No. When skins are exchanged for fish in simple barter among savages, they are not valued by a substantive standard. Their worth is ideal, and is so compared. In civilization men think only of the relations of worth between the things exchanged, bought, and sold. If they mentally compute the respective values by dollars, or weights, or measures—they no more think of the number of dollars in the market than of the number of pound-weights or yard-sticks which dealers employ. If it be dollars they are buying, they, also, are ideal values of the uses they may serve, which have no standard of purchasing power over other things. Goods are not valued by the ships and wagons that transport them. These are mediums of transportation, and so is money. It serves in calculations as the numerals one, two, three, or inches, yards, and tons do in measuring quantities. It is an instrument, not a subject of exchanges; for, in its condition of money, it is only a sign, a token, an algebraic symbol, and has no other use or office in the transaction. It is another kind of money—money of account that

mediates effectively in contracts—a money that is embodied in inscriptions upon paper in debits and credits; and the money of currency is the representative of as much of this money of account as it covers, and its function as a representative of money of account is that of a conveyor of property, nothing else. If business were perfectly organized, no more currency could be required than enough for the settlement of balances, say, if you please, 10 per cent., if that be the average amount of profit, and so would not be anything like the measure or the equivalent of values in exchange. As affairs are now conducted money of all kinds, usually meant by the word coin and credit money, does not exceed 10 per cent. of the property and services transferred.

D. Your theory seems to me so metaphysical that I do not readily grasp it, and it, therefore, hardly describes the mental process of the incurious and unskilled in matters psychological.

T. The most common understandings and most ordinary mental methods are as far above the range of matter of fact as are those of philosophers. Their eyesight does not limit their mental vision any more than it does yours or mine. Their reveries and reflections are as remote from the material things which are the subjects of their thoughts. There is an efficient metaphysics in all men's thoughts that is not counted upon in the philosophy of cipherers.

P. Our difficulty of apprehension and hesitation in the acceptance of your prelections occasion diversions in these discussions. Breaking away from these interruptions, let us have the promised testimony of the experts who are deemed to be safe guides in our inquiries.

T. Any tolerable approach to an adequate presentment of the lifetime labors of William Jacobs, Arthur Young, Thomas Tooke, and Stephen Colwell, within our little compass of limits, would be like the compression of the globe into the dimensions of a nutshell. I prefer to give the summary results of their labors, which must answer our purpose, as it is stated by Mr. Colwell (*Ways and Means of Payment*, p. 565): "The average prices of the 16th century were only an advance of 24 per cent. over those of the 15th, whilst an addition of 380 per cent. had been made to the stock of the precious metals; the average prices of the 17th century were advanced 80 per cent. over those of the 16th, and the addition to the stock of

the precious metals was 875 per cent.; the average prices of the 18th century over those of the 17th were an advance of 11 per cent., and the addition to the stock of the precious metals 1120 per cent. To make the case more striking, the prices of the 18th century over those of the 15th were an advance of 108 per cent., whilst the addition to the stock of the precious metals in the three centuries had been 1120 per cent. It is to be noticed that the average prices of the 17th century over those of the 15th, which covered a period before the use of paper currency, exhibit an advance of 111 per cent., whilst the average prices of the 18th century, in which there was a great use of paper currency, besides the immense increase of the precious metals (1120 per cent.), present an increase over the 17th of only 11 per cent."

According to the investigations of Young and Jacobs, prices advanced from the 15th to the end of the 18th century $2\frac{3}{4}$ times, and the precious metals $6\frac{3}{4}$ times.

P. What think you of these reports or estimates?

T. I believe that the researches of Arthur Young are as good, and certainly as faithfully made, as the nature of his subject—prices—admits. Of Jacobs, on the production and employment of the precious metals as money, I must say, with J. R. McCulloch, that it is the best yet produced, but still defective, and so far erroneous. There is no practical means of counting or calculating the coin in use at any time. Moreover, with respect to the prices by Young, it is to be observed that they are necessarily averages of sums widely variant in labor wages. For instance, in the north and south, and again in the east and west of England, they range considerably even in adjoining counties, and at different distances from London; and in all districts they vary much for the summer and winter months, and the tables given are, therefore, only averages of averages.

Besides, however nearly Young's items may approximate the actual rates, the estimated results used in comparison of the different centuries given in his tables, the items are not identical. They are the prices of somewhat unlike commodities; thus, horses, coals, provisions, etc., are given for some of the centuries, but not for all of them. But what is to be done by ciphering

among cipherings, and among difficulties such as are inseparable from such explorations as these ?

P. Is there nothing more exact and more reliable in any of the authorities than in those which you have cited ?

T. Thomas Tooke, author of the history of prices and of the state of the circulation, from 1793 to 1857, in six octavo volumes, of whose works Mr. Colwell, one of the most competent reviewers, and himself one of the best authorities, says: "It has no equal in any department of political economy for indefatigable research, for patient analysis, for the extent and variety of facts on which its conclusions are based, for fulness of illustration, and for lucid arrangement." Mr. Colwell adds that he is "not aware that any respectable attempt had been made to refute its conclusions or to weaken its authority, although its main object and undeniable result has been to contradict many cherished positions of leading economists and theorists of the present and past generations." In an examination and severe cross-examination before a committee of the House of Commons in 1832, and in a discussion pressed upon him by well-prepared opponents, he forced the conclusion that "the details given by him were accurate as to time, and as nearly as possible accurate as to amounts."

The testimony of Mr. Tooke, so qualified to speak, is in his own words; speaking of the great fluctuation of prices which took place between 1792 and 1858 (66 years), which were the greatest that have ever occurred in the history of commerce and trade, he says: "The alteration of prices originated, and mainly proceeded from alterations in circumstances distinctly affecting the commodities, and not in the quantity of money." He, therefore, condemns as wholly erroneous a resort to the state of the currency for a solution of the phenomena of prices. He does not deny that an increase of money may have, in special instances, a tendency to enhance prices, or, that all other things being equal, it would not in all instances have that tendency; but he holds that the quantity of the currency is not in itself, a regulator of prices, these being mainly determined by facts and circumstances peculiar to the commodities so affected; and that these circumstances do frequently operate with such force as to reduce prices in the face of an ex-

panding currency. In point of fact the expansion of the currency is frequently the effect, and not the cause of enhancing prices.

P. Have you anything nearer home, and more recent in the relative changes of prices and quantity of the currency which bears directly on the question at issue?

T. I have selected from a treasury report of 1863, twenty staple articles, which was a selection from sixty representative articles in the New York price lists. An examination of the prices of these sixty articles on the 1st of May, 1855, and of 1860, shows a decrease in thirty-five of them, ranging from 44 to 12 per cent. Several others of the remaining twenty-five showed a slight decline, or stood at the same price at both dates. None but molasses, sugar, window-glass, wool, Liverpool salt, coffee, and cotton had risen, and they but little.

During the period of this great decline of prices, the bank note circulation increased from 187 to 207 millions (equal to 10.7 per cent.); the bank deposits, which are also currency, increased from $190\frac{4}{10}$ to $253\frac{8}{10}$ millions of dollars, equal to 33.3 per cent., together increasing the effective fund for commercial use 22 per cent. in that five years; to which must be added, according to the theory of money equivalency, all the gold and silver thrown in the interval into the channels of trade, which could not be less than 55 per cent. (the increase in the coins in the banks was 55 per cent.). Putting these money funds together—bank notes, deposits, and specie, we have a purchasing stock of $544\frac{1}{2}$ millions in 1860, against $431\frac{3}{10}$ millions in 1855—an increase of $26\frac{1}{4}$ per cent. against a *decrease* in prices ranging from 44 down to 12 per cent. in the chief staple articles on the market.

P. The decline of prices in face of the increase of money is very great. Might I guess that this decline was as much as 25 per cent.?

T. You may guess, but you cannot calculate or count the aggregate average, unless you had the quantities of each article sold in 1855 and 1860; and these quantities cannot by any means be ascertained of sixty staples, with many of them in half a dozen forms; but the exhibit certainly shows a great decline of prices under a great increase of purchasing funds.

D. Prices certainly rose after the discovery of the mines of California and Australia, between 1850 and 1860.

T. And fell again as much after the effect of the influx of coin and the speculation attending it in the period 1850-55. Even while ten of the articles given in the treasury report rose considerably between 1850 and 1855, seven others of them decreased very greatly; and while eleven articles decreased in price between 1855 and 1860, six went down from two to twenty-three per cent. under the like influence of the currency, if it had such influence. These facts plainly sustain Tooke's conclusion that the state of the currency is not the regulator of prices, and that these are mainly determined by facts and circumstances peculiar to the commodities themselves.

P. Oh, bother the statistics. Did not my father pay twenty-five cents for a yard of muslin, which I can buy for a quarter of the sum? Didn't he pay a dollar or two for a crayon portrait, and I can get a better photograph for twenty-five cents; because, forsooth, money is four times as plenty now; but in spite of that plenty, I must pay four times as much for a day's labor as he did fifty years ago. What nonsense is this money measure of commodity values!

T. Keep your temper, my boy, and don't treat fools as they deserve. If you ever get into the discussion you will have Montesquieu, Hume, and Mill put at you as gravely, solemnly, and seriously as if their logic meant something. Don't you know that the Aristotelian syllogism proves that you are a goose?

P. But I don't feel the feathers, and I have not the web-feet to waddle on the land or swim in the water.

T. Then you don't feel the force of the logic that begs the premises and forces the conclusion, and lets the facts take care of themselves, if they can.

D. That really sounds like profanity. The Jews held it to be blasphemy to speak against Moses. How did Montesquieu expose himself to such severity of criticism?

T. Hear him as he committed himself in his "Spirit of Laws," book xxii., chapter vii. There he says: "If we compare the mass of gold and silver in the world with the whole of the commodities, it is certain that every commodity in particular

may be compared with a certain portion of the entire mass of gold and silver. As the whole of the one is to the whole of the other, a portion of one will be to a portion of the other. Prices are fixed at a rate compounded of the whole of the commodities with the whole of the signs, and that of the whole of the commodities in the channels of trade with the whole of the signs (gold and silver) employed as money. The establishment of prices depends always fundamentally upon the proportion of the total of the commodities to the total of the signs." There, now, did you ever see the premises more boldly begged than in this syllogism?

P. I think we have enough of these theorists, and, excuse me, more than enough of the counter-argument.

T. We shall have to encounter them again and again, for we have not yet considered the subject of credit-money, and the functions and policy of banks and institutions that issue it.

P. By the way, there intrudes just here, I think, the subject of mono-metallic and bi-metallic currency, or money. Are you disposed to take it up?

T. It is in place now to consider it, which we must do very briefly.

CHAPTER XIV.

STANDARDS—GOLD OR SILVER, OR BOTH.

T. Our inquiries are not a circular hunt in statistics. We are not making invoices of an itemized arithmetical toy-shop. We must use numbers in the expression of quantities, but the facts which we hunt for among figures are only those which tend to make evident the truths that rule in affairs. I wish I had the skill to array those which I must use in efficient forms. Everything of use in them depends upon the way in which they are mustered, and the accuracy of their aim in the conflicts of opinion. I am as weary of their employment as a schoolboy is of grammar on the eve of a holiday. The question of a monetary standard in the precious metals, and especially in the disputes about it, cannot be settled without a reference to the quantities and conventional values of the metals in use.

P. I should like you to take the directest route to the Q. E. D. of the problem, and in its light see the proofs and the objections that must otherwise obstruct a first view of the subject.

T. You want an abstract of the general principles that settle the conclusions first, and, if need be, an exploration of data and details afterwards. Let us try that method and see what will come of it.

D. Does not the inquiry turn upon the policy of a fixed or arbitrary standard of values in commerce? And have not each of the two precious metals answered the need, sometimes jointly and sometimes exclusively? And is not the adoption of either or both a matter of convention, custom, or law, and is it not so settled without the use of tally-sticks in the discussion?

T. You are getting into danger—the danger of admitting that the true money is the ideal, or money of account, which has no material substratum; in effect, you are perhaps unintentionally avowing the doctrine of fiat money, and building an arbitrary money standard upon nothing tangible, by legislative arrogance. Indeed, legal tender has something of this in its assumptions.

This doctrine applies only to a standard without a substance supporting it, and not at all to things having in themselves a commercial value. The bullion of coin has an exchange value, and its price is determined by the labor-cost of its production, and to whatever accidents it is subject in common with other commodities of the market.

P. Now I understand that lawful money, whether of metal or of paper, is only a standard in payment of subsisting debts, and is not a standard of prices in contracts.

T. The bullion in coins of the same substance, whether of gold or silver, varies in cost of production, and, therefore, in market price, and obviously the coins, or the bullion in them, bear no constant proportion to each other, which consideration disposes of the question of bi-metallism conclusively on the ground of natural value.

P. Is there so much variance in the prices of the two metals as greatly affects their equivalence?

T. Isabella of Spain, in 1497, fixed the ratio of silver to gold at $10\frac{3}{4}$ to 1; Elizabeth of England, in 1560, put it at 11 to 1;

France, in 1785, determined the ratio at $15\frac{1}{2}$ to 1; and the United States raised it to 16 to 1 in 1834. But the market prices at London were, in 1870, $60\frac{1}{2}$ pence in gold for an ounce troy of silver, and in 1878 $50\frac{1}{2}$ pence. It has fallen within eight years to $49\frac{1}{2}$ pence, and during the last year (1879) it has ranged from 52 to 53 pence.

Now, did gold rise in exchange value, or did silver depreciate? or did the one rise somewhat and the other fall to make the difference? And in either case, what becomes of your standard?

But we have another trouble to meet. The director of the mint says that as prices have not advanced above those of 50 years ago the annual supply of the precious metals, although increased five-fold, is not excessive, nor more than sufficient to satisfy the world's present needs for coinage and manufactures, and has not inflated prices by depreciating money. And the *London Economist* believes that the great increase of the gold production has not more than met the vast increase of commerce which it stimulated in the last thirty years. Do you perceive how little the figures of quantities and conventional values help us in establishing the ratios?

D. Then, after all, there is something of the ideal even in the accepted exchange value of hard, substantial money.

T. Settle that question as you may, the ever-varying price of gold and silver is conclusive that they do not so accord that they can be, either separately or together, one and the like standard or unit of estimation in the exchanges of trade.

P. The principle or policy of legislative rule in the legal standard of money has been extended to other commodities; as in England, where the wages of labor were fixed by Parliament at certain rates; and by other governments, in limiting the price of provisions in times of scarcity. Even some of the States, during our revolution in the last century, prescribed punishment for vendors of goods charged at higher rates for Continental money than for payment in gold and silver; and the Sumptuary laws of England, intended to restrain expensiveness in the cost of living, or to compel the use of commodities of home production, had in them something of the principle on which legal tender is grounded.

T. The most of these legislative interferences in exchange values have been abolished for their weakness and unprofitableness, except in the matter of the payment of debts, where a restraining provision is necessary to prevent oppression by creditors. Legal tender has this use and office, but it cannot affect values in purchases and sales, except to some extent indirectly. Thus the trade dollar, which has in it $7\frac{1}{2}$ grains more silver than the standard dollar of the Mint, has yet fallen to a discount, because not received at its intrinsic value at the Treasury, or made lawful in the payment of debt.

P. How does quantity of these metals thrown upon the market affect their relative values?

T. Not so much as the pet doctrine of supply and demand would lead you to infer. The Director of the Mint adopts the estimate of the production made by a famous German statistician, thus:—

The world's production of silver in the 24 years, 1849 to 1873, valued at $15\frac{1}{2}$ to 1 of gold, amounted to $31\frac{1}{8}$ per cent. of the total, and of the gold to $68\frac{3}{8}$. But the annual supply of gold in the three countries which produce four-fifths of the world's supply (United States, Australia, and Russia), reached its maximum in the year 1856. The total of that year was 134 millions of dollars; in 1876 it was 90 millions; in 1878, 99 millions, and in 1879, 87 millions. But of late years the production of silver, which was less than one-half of that of gold, in the 14 years ending in 1873, has by the decline of the gold yield and the increase of the silver, approximated very nearly to that of gold, measured as $15\frac{1}{2}$ to 1. In the 6 years 1874–1879 the gold from our United States mines aggregates 244 millions, and the silver nearly 234 millions, and the Director estimates the yield of silver for 1879 (included in the 6 year period) at an excess of two millions over that of gold. Putting the price of market commodities in 1870 at \$1.00, he states that in gold they have declined to $86\frac{7}{10}$ cents, and have risen (in 1879) in silver to \$1.03, with fluctuations in the intermediate years.

Here there seems to be some effect of quantity upon exchange value, as it appears also in the fact that our standard dollar sells now at about 88 cents in gold value in London. Legal tender in

the United States interferes with the natural equation of prices, as the wages of society do in Europe and Asia, so that no one can tell the exact effect of quantity upon market prices. But all the facts show the impossibility of equating silver and gold money by convention or arbitration. Just as long as things of unlike labor-cost, and the resulting unlike market price, are made subject to an endeavor at equilibrium in any ratio of weights or quantity, the impracticability of the effort clings to, and must defeat it.

D. The necessity or the convenience of a metallic medium of exchange, which does not depend upon the good faith or the solvency of the issuing party, as all credit money does, obliges you to be a mono-metalist. Do you adopt gold, as England has done during the greater part of the present century, or silver, as the East Indies have had it, time out of mind?

T. England chooses gold as a preferred metallic currency, because, being about fifteen times lighter at the usual commercial value, it serves so much the better, when it must be used, for her immensely large requirement of coin. India has not an equal necessity for great values in little bulk to cover the demands of her trade with foreign nations; that is, she requires so much less of the money of the world in either kind, that with other reasons she can manage with the weightier metals. She, however, has suffered terribly within the last two or three years by the depreciation of silver in the markets of foreign nations. But, to the other point involved in your question—I answer that neither England nor India is so far in similar conditions with the United States in respect to monetary affairs, that either of their usages indicates the best policy for us.

D. Would not general commerce be as much benefited by a uniform standard of money values in all countries, as by the adoption of corresponding weights and measures in merchandise?

Congresses have assembled, and experts, statesmen, and journalists, are in a persevering endeavor to induce and arrange a conformity of the commercial nations by the establishment of a common standard of the coins in use.

T. Merchants are a universal commonwealth, they are not patriots; they are cosmopolitans, and theorists are their oracles. Accordingly their conventions come to nothing. The Latin nations

have only gone so far in equipoising the metals as restricting, but at the same time allowing, themselves to coin and circulate a certain quantity of silver coins at their nominal value. That amounts to a surrender of the question to settlement by the usages of each people. They have done nothing, and can do nothing, to fix a determinate relation of value between silver and gold.

D. You hold coined money to be a commodity, and yet you would hinder or embarrass commerce in that kind, while, I suppose, you would favor it in other commodities.

T. A sound policy of foreign trade looks to and provides for all exchanges of industrial products which are mutually advantageous to the parties concerned in it. But there is a domestic condition of monetary affairs that must not be sacrificed to the supposed advantages of international trade.

D. Are the true interests of one nation in anywise incompatible with those of the rest of the world?

T. The true interests of one people, wisely guarded and efficiently promoted, must redound to the well-being of all others with which they have dealings; and the wrongs and injuries of one are, in the long run, reflected upon all the others.

D. The men of the Revolution asserted that all men were created equal, and it seems to me that in all intercourse our fellow-men should be regarded and treated accordingly.

T. Oh, my dear sir, the Declaration of Independence does not commit itself to the notion that all men, through their whole life, shall continue equal in their business conditions and relations—that, because they were born babies, they must never grow out of the level condition of babyhood, or that the brightest of them in maturity shall treat the slow-goers as yoked with them step by step. That is an equality that nature knows nothing of. Cosmopolitanism, even at its wildest, cannot so merge and smother individuality in community. Cosmopolitans who are only logicians, and for the most part mere word-mongers, find it easier to make a world for their system of government than to find a system of government fitting the world as it is.

P. I am waiting for the reasons why the money policy of a particular nation is governed by a rule necessarily different from the requirements of its foreign trade in other commodities.

T. In regard to credit money—paper money—it may be said that it has little or no international uses. It is gold and silver that are the money of the world, and it is in respect to them that uniformity of relative value is in question.

All the kinds of credit money are exempt from direct foreign influences, because they are not world's, but national money. These are out of the reach of international congresses, and so are safe from the meddlings of speculative theorists, who have taken the whole planet into their providential jurisdiction. But metallic money stands exposed to their interference, and, accordingly, it is tampered with from one end of the globe to the other by those who have any sort of motive for reforming, deforming, or conforming it to their several standards of opinions. We insist, however, that although the precious metals are a world's money, they are none the less a national money, just as we may say of a man that he is one of the human race, but he, nevertheless, belongs to his own nation and owes it allegiance, even to the extent of war with his other and remoter relations. In this relation money is a domestic concern, and has rights or duties which we are bound to respect.

In all the smaller transactions of business it is an indispensable medium of exchange, and it is the grand security for the current value of the circulating credit money which promises its redemption in coin. Thus gold and silver perform the work of ordinary retail traffic, and stand security for some hundreds of millions employed in the larger exchanges. They work every day, every hour, every minute, and in every nook and corner of business affairs.

The gold and silver money of this country are now reported by the Director of the Mint, and by the United States' Treasurer and Comptroller of the National Banks, at the sum of 427 millions, and the circulating notes outstanding at 668 millions. France has in circulation 467 million dollars of paper money, 733 millions of gold, and 426 millions in silver coins. This shows the importance of care in the management of the basis of the credit medium in both countries; and exhibits, besides, the reason why France dare not demonetize her silver circulation, and cannot, in the other alternative of mono-metallism, reduce her gold to a market commodity.

D. The argument from such facts as these bears upon the question of gold or silver as the legal unit of value, but it does not show any ground for the severance of the domestic from the wider policy of their management.

T. These facts have their bearing even upon the subject directly in hand, as you will see. The difference of rule and regulation, to which you advert, lies here. It is in the vast difference between the domestic and the foreign requirement of money among any particular people. Being especially concerned with the question in the United States, it is to be noted that our home products which go into market and the services paid for, have fifteen or twenty times the gross exchange value of all our foreign imports. The number of exchanges made in them are, perhaps, a hundred times as frequent, requiring the metals in their proper traffic office, as well as in the support and utility of the circulating notes. They are in incessant, actual, or potential use against intermitted and infrequent purchases of foreign imports. This difference allows me to suggest an analogy between the heart-beats in our bosoms and the hand shaking with our acquaintances.

D. You sometimes mix poetry with your logic, and patriotism with principles of business; so that, for a clearer understanding of the subject in hand, I should like to know what you would have for domestic service in the matter of money?

T. In a word, I would, to the whole extent of the legitimate demands of domestic commerce, have a non-exportable currency. I would have an American money so decidedly national that it would not pass at its nominal or home value in any foreign market.

D. Is it possible to make the currency required for domestic business of such substances or qualities as shall make it non-exportable, and at the same time serve all the uses required of it in domestic commerce?

T. Our greenbacks, fractional currency, and national bank notes were such a currency, and were the exclusive medium of home commerce during the great Rebellion, and afterwards up to the resumption of specie payments, at the end of the year 1878,—a period of seventeen years of war and peace. They were, as compared with gold, greatly depreciated. They were only prom-

ises to pay, and they rested for nearly all that time upon the uncertain solvency of the government; and were, therefore, not at any time convertible into the money of the world at par. But, by the accommodation of general prices to their estimated valuation, they did manage the vast business of the necessary exchanges of the period. They were kept, let me say, preserved by their depreciation from foreign interference, and the disturbance of a foreign standard. In that same quality of depreciation below the nominal value our coins, especially the lower denominations of them, are preserved from exportation.

D. Is there not something of fraud in debasing the coin of the realm by the authority of the government, as well as by the rogues of the clipper, sweater, or counterfeiter?

T. Are you not aware that you handle some of those debased coins every day without doing wrong to anybody? Congress, by the act of February 21, 1853, for the purpose of retaining our fractional silver coins at home, reduced their intrinsic value nearly 7 per cent. (6.909) below that of the standard or unit; so that two half dollars, four quarters, or ten dimes have a weight of only 384 grains of the same quality, which is $28\frac{1}{2}$ grains less than the dollar piece? Was there any fraud in fixing such exaggerated nominal value, declaring the truth of the depreciation, and warning foreigners and all concerned of the difference? Was it cheating the people at home, or was it securing them the possession of a medium of payment which was so indispensable that in the early time of the Rebellion we were driven to the use of postage stamps to supply the need of small coins which their premium drove out of circulation?

This is not the only instance in which lawful coins have been reduced to prevent their banishment from the marts of domestic trade. In the year 1834 it was found that our gold money was worth abroad 6.262 per cent. more than the silver unit; and, to prevent its exportation, by statute of 28th of June of that year, the gold eagle was reduced from 270 to 258 grains, standard, and from $247\frac{1}{2}$ to 232 grains of fine gold. Here was a heavy year's interest struck from that piece of the world's money at a blow, and this was done to make it something nearer to non-exportable.

P. This exposure of standard moneys and of legal tender looks

as if there were a lurking mischief in the practice of minting the precious metals, and fixing upon them an arbitrary price or value.

T. But the convenience of having the weight, quality, and exchange value of coins authoritatively ascertained outweighs all possible loss in their domestic use. In large transactions and in foreign trade the law of legal tender has little or no operation. This fact has induced the assaying and forming of these metals into ingots or bars. The coins of all countries are re-coined before they enter into the currency of any other country. In this the essential quality of all money is regarded—its *convenience* in use—especially in the smaller pieces, which ordinary people are not prepared to test as to quality, or weigh as to quantity.

P. But there may be fraud, or at least injury, in the operation of legal tender laws applied to the larger denominations of money, though there is not in the debasement of small change, which, after all, is in effect only a provision of counters for the conduct of the limited business it is required to serve.

T. A brief notice of the changes that have been made in the values of coins by authority will suffice on this point: In the year 1066 the tower pound of silver was coined into 20-shillings (equal to $18\frac{3}{4}$ shillings of the troy pound adopted in 1527), and thereafter the same quantity of the metal, or troy pound, underwent the following startling changes: In 1527, forty shillings; in 1553, sixty shillings; in 1600, sixty-two shillings; in 1816, sixty-six shillings. The legal tender laws of England fixed and unfixed these variant values of coins bearing the same name in something less than eight centuries.

In France the livre, or pound weight, of the days of Charlemagne, about A. D. 800, contained fully seventy-eight times the quantity of silver that makes its legal tender weight now. Turkey has distanced England and France in the extent of her changes. In the year 1753 the piastre was worth three shillings and sixpence sterling (about 85 cents of our money). In 1863 it had fallen to a fraction over two pence ($4\frac{1}{3}$ cents), but was not worth commercially more than three cents. And I may add here that the United States pays out subsidiary coins at a profit to the government of 12 per cent. over the price of the silver in them.

D. This history vindicates your startling proposition, that

money is not a standard of exchange values at considerable intervals of time, and even that it is not a measure of intrinsic equivalence at any time. Indeed, it goes far to show that for the purposes of domestic traffic a debased or depreciated, or even a counterfeit, currency, while undetected, may very well answer the purposes of trade. But we have in the present condition of civilized society an exchange of commodities with foreign nations for which a non-exportable currency is unfit—a kind of money that bars us out of their market and them out of ours. Must we have two kinds of money for these two kinds of trade?

T. There is nothing in a non-exportable currency, of whatever materials it may consist, to hinder the exportation and importation of gold and silver at their bullion value. They are not now sent to, or taken in, the foreign markets as money—they are valued by the metal in them. England pays us so much per ounce for our gold and silver, coined or uncoined, alike; not *so* much for our silver dollars or gold eagles. If you could get rid of the notion that the precious metals are money *per se*, you would understand that we could trade in them for all the purposes of trade as we did during the rebellion, and four or five years after its close, just as we trade in broadcloth or bar iron. It is time that the agency and uses of these metals were rightly understood.

D. You assume that we shall have gold and silver beyond our home requirement for exportation when the balance of trade in goods and other products is against us.

T. I am not making that assumption, any more than I am admitting that when the balance of trade is in our favor we would have no use for the precious metals in which it would be paid. I am only insisting that these metals are not money in international exchange, any more than they were at the mouth of the pit from which they were dug. As products of industry, let them go abroad as freely as we export the surplus of our wheat, pork, and cotton. I am providing for the medium of home business in the form of money, and for foreign trade in the form of merchandise.

P. The provision and protection of the home supply of money is so important with you that you would have it control our foreign trade. But we have frequently been in debt to foreign traders. What is to be done then?

T. I cannot alter the fundamental principles of international trade. It is by natural law the mutual interchange of the products of industry. Primitively, it is barter, pure, simple, and direct, and so far exempt from the accidents of indirect agencies. Under all changes of operation through intervening mediums, it is still barter, and this idea should control foreign trade as it does domestic commerce.

P. You regard money, of any kind, not as in itself a value, not as a substance, but as an instrument, a leverage or pulley-power; not the thing or weight to be moved, but as a machinery used in the process of moving other things; having no identity of form or substance, but only an adaptation to the service in which it is employed. It may be metal, paper, or credit; fact or faith, ideal or material—any conventional medium that best effects exchanges of things.

T. To familiarize this apprehension we need only advert to the various substances that have served as a money medium, and in the circumstances, one as well as another. Shells and beads, wampum and cowries, tobacco, codfish, cattle, platinum—attempted in Russia—gold and silver, generally, and circulating notes almost as general in modern civilization, or during almost the last two centuries. From such a review we must conclude that such money or moneys as these are not in themselves equivalents in the exchanges of property, but are only used to represent or express the *idea* of value in the things exchanged.

D. I understand you to mean that the necessary quantity of money, in any and every form, for domestic uses should be made non-exportable, to preserve it for service, and that the metals, called the precious, will pass for just what they are worth by estimation, like other products, in foreign markets, and so answer all the purposes of barter, while the bank note representatives or substitutes for coin, will get leave to stay at home, because they are not acceptable abroad, and that the retained gold and silver will keep them solvent, provided we take care in our international trade to make our exports at least match our imports.

T. I am glad to find the disputant growing into concordance.

D. There is still one point upon which I am not perfectly clear. If money is not a standard of value—if the metals in use are not

absolutely independent of the ideal in estimation, why should they be regarded as the basis and gauge of credit money values, and why should they be held ready for the conversion of circulating promises to pay? Why are they in fact and in law actual payment?

T. They have a certain intrinsic worth which the bank note has not; that worth has a value in exchange everywhere which the bank note has not. The bank note says, I will pay on demand; the coin does pay without a contingency that must be risked. Specie in currency is like security behind a promise. In ordinary experience it answers rather as a test of solvency than as an actual redemption of a pledge. Representatives of unquestionable value are so much an idea that the belief of convertibility, instead of actual conversion, is all that is required in a credit circulation. The Frenchman who called upon his New York banker in a time of money trouble expressed the philosophy of a credit circulation. "If you can pay me my money, I don't want it; if you can't, I will have it." That tells all that there is in a specie reserve.

P. An argument that is usually called exhaustive, is better to be closed before it exhausts the parties to the debate.

T. The over-fulness of illustration indulged in here anticipates, and will apply itself to, our coming discussion of the topic of credit money. Keep the surplus of proof on hand for that purpose.

CHAPTER XV.

MONEY, A PRODUCER OF VALUES.

T. The general proposition—Labor is the creator of all values—needs, for more abundant caution, to be guarded against such misconstruction as socialists and communists are prone to put on it. The affirmation must be understood to mean that labor is the primordial agent of production, just as native ability is the basis of all mental attainment. The phrase "knowledge is power" is like it, meaning that power is the out-come of knowledge, and not

that education is inoperative. Levellers use such phrases when they claim for the seed the whole product of its growth which it gets only under the coöperative influences of soil, air, rain, and sunshine. Man stands in the presence of external nature in the attitude of a combatant, and his conquest of its forces, and his use of its contributions to his service, are his work in all the kinds of force which he exerts upon it. Every instrument which he employs in the achievement is included in the great compass of the term Labor.

Capital in all its forms is a producer of values. It is significantly called "dried labor." The cause is in the effect. If a man makes a spade and uses it, it is his co-worker and coëfficient in further production. The steam force and the wheels and pulleys of a machine are joint contributors with natural labor in production, and are entitled to shares in the product proportioned to their share of cost in the work. The fact of ignoring or undervaluing the claim of capital, born of labor, is fatal to the philosophizings of socialistic theorists. It is nothing else than saying that the fruits of previous labor shall not be owned and used by those who created them. Such capital, whether it be in money, raw material, food, or clothing, is, in its way, as capable of new creations as is the laborer himself.

P. In common language capital is restricted, in meaning, to money. The word is so employed in speaking of banking, manufacturing, and trading.

T. Money, inactive in private hands, is a fund or hoard. It takes the name of capital when it is at work. The common use of this distinctive name means that it is then a producer, and the moral inference is that "the laborer is worthy of his hire."

P. Savages remain savages because they do not accumulate capital otherwise than beasts and bees lay up stores for consumption in the season of need. Their reserved acquisitions are intended only to meet current requirements. Their labor products are not made to labor for them in further production. I suppose I may say that capital is *dead* to them.

T. Hence the credit in estimation, or the due reward in working, to that thing, above all others, which is the life-spring of human progress.

Indulge me in some reflection upon the functions of productive industry, in which capital may be treated as the *coefficient* in the multiplier of the power to which it is affixed. Let us start from the point that the conditions of human life are such that its indispensable supplies, comforts, and luxuries must be drawn by perpetual new creations from the elements of the earth and of the terrestrial heavens. Labor, in its largest sense, embracing that of the head, heart, and hands, is the cost of these supplies. Among civilized men, in advancing conditions, these necessities are ever-increasing in extent and variety. Human progress implies growing control over material things; and this, again, makes a growing demand for them. Capital, of which money is a form, stimulates and promotes the production that must meet the ever-enlarging want. Money represents the sum of all the forces in this service. It is active as an agent, as well as a sign, a counter, of the exchange value of all other things,—such as labor, raw materials, machinery, and the intelligent directory of work performed. Capital in the form of money, and credit acting as money, is in function and fact the *primum mobile*, the chief cause of motion in all civilized industries; for here, as in the Ptolemaic system of the planetary circulation, it is the outermost revolving sphere which gives motion to all the rest. A country without capital has foot-paths for its highways; with capital it has railroads. Runners are the express messengers of the one; the electric telegraph carries the messages of the other. These conveniences have value because they are uses. The sum of all the utilities commanded measures the wealth and welfare of a people. The labor of the past is not dead, it is alive in the capital of to-day.

P. Then, of course, if money is labor transformed, it is sometimes a hireling, as in the low estate of its progenitor.

T. Well, hireling, if you please. Do you know any office among men, whether rewarded with salary, fees, or wages, that is not in a hireling service? Sometimes money works for its owner for wages called interest; sometimes it takes the rôle of an employer, when its yield is called profit. You may call the earnings of money invested, interest, rent, or wages. In the olden time its return to the lender was called Usury, derived, I suppose, from its use; but the words fell into disuse three or four hundred years

ago, under the prohibition of its exaction from their brethren among the Jews, while it was allowed in their traffic with the Gentiles. I do not know the etymology of the substituted word, Interest. It was probably adopted as a technical escape from the denunciations of the law and the prophets.

P. The wages, or hire of service, are usually described by different terms—some of them mere euphuisms, used because the rose will smell sweeter under another name.

T. They are distinctive terms, used for descriptions of the same thing under some modification of circumstances. Wages is employed to express the award of common labor; salary, for service for a term; fees, for official or professional persons. Honorarium was used for the compensation of physicians and lawyers, when the common law refused its remedies for the recovery by suit in the courts of justice. In essence these are all alike. They are all labor. The mind labors as well as the body, and its products are called the *works* of the author.

CHAPTER XVI.

MONEY OF ACCOUNT.

T. Our inquiry has brought us now to the subject of credit-money; but we cannot enter upon it, restricted, as it usually is, to circulating notes or paper money, without a closer understanding of the general subject of Money of Account. Its explication is the key to the theory of money of every kind and of every substance.

D. As a description of a kind of money distinct from anything usually known by the name, yet treated as a substantive thing, and requiring distinctive treatment, it may be some sort of a logical necessity for the purpose of theoretical debate.

T. Neither the phrase nor its intention is the invention of any sect of economists. It has long been the property of the analysts of the money function. Montesquieu, in his *Spirit of Laws*, as

long ago as the year 1748, says: "There are real and ideal moneys." He adduces an illustrative instance in the practice of the blacks on the coast of Africa, who have a sign of value, without money, purely ideal. They say a certain article is worth three macutes, another six, another ten macutes. That is the same as if they said simply 3, 6, 10. Thus the price in their exchanges is fixed by comparison of commodity with commodity, for there is no money, and they have no reference to any medium of standard value existing in some other form or substance, and the goods themselves are directly compared in value.

Bishop Berkeley, still earlier (1730), in the form of a query, which conveys an affirmation, puts the point thus: "Whether gold, silver, and paper money, are not tickets or counters for reckoning; and, whether the denominations being retained, although the bullion were gone, things might not, nevertheless, be rated, bought and sold, industry promoted, and a circulation of commerce maintained?" Here is a distinction between money in substance and money of account fairly presented.

D. These authorities are speculative philosophers. Have any practical writers thus resolved the actual into the ideal?

T. The act of the American Congress of 1792, establishing the national mint, has this recognition of the insubstantial. It declares that "the money of account of the United States shall be expressed in dollars or units, dimes, tenths," etc.

Alexander Hamilton, in an elaborate report on the proposed system of coinage made to Congress, expressly recognizes the distinction between "the unit of the money of account" and "the unit of the coins." Jefferson, in his report upon the same subject, assumes the same distinction. Stephen Colwell concludes an exhaustive examination of the question by saying, "It is to be noticed that we are not bringing forward or recommending any new mode of reckoning or computation. We simply assert the matter of fact that all prices, all books of account, all statements of sums of money, all bills of exchange, and promissory notes, and all bank notes, are expressed in money of account."

The Marquis Garnier well and truly remarks, "We distinguish two kinds of money,—real money, or coins, and money of account, which is the expression of values, or the specification of prices.

The valuation of merchandise made by the seller, the offer made by the purchaser, the accounts, the promises to pay, the stipulations of hiring, quotations of stocks, the rents of farms,—all that in any transaction precedes the act of payment,—must be carried on by money of account. Real money only intervenes for actual payments.”

D. Suppose this were all true theoretically, what is its use practically?

T. I will not allow myself to argue the value of abstract truth. I content myself with the notion that it is well to understand what we and our neighbors and rulers are all the time talking about. Let me add to the authorities already cited the conclusion arrived at by Kelly, the author of the *Universal Cambist*, a work of admitted authority, founded upon information obtained with great labor and expense, in which the author was aided by the British government. He says: “Moneys of account may be considered with respect to coins, as weights and measures with respect to goods, or, as a mathematical scale, with respect to maps, lines, or other geometrical figures. Thus they serve as standards of the value of both merchandise and the precious metals themselves.” Mr. Colwell corrects the phrase “standard of value,” justly remarking that “the money of account is not only as operative, but as necessary, to commercial dealing when the coins correspond with it as when they do not,” which is fully supported by such facts as these: England employed the pound sterling in computation and valuation for generations before the year 1816, although until then she never had a coin corresponding to it. The people of Pennsylvania, Massachusetts, and Georgia kept their accounts in British denominations for more than fifty years after, as well as before, the Revolution, though the unit was the dollar, and the coins were in decimal fractions and in multiples of it, and although they had not a single coin answering to the denominations which they persisted in using as a scale of values.

This is what is meant by the rule of valuation as an ideal or mental proceeding. This is what Kelly means by saying that the money of account measures the precious metals themselves, with the necessary consequence that these metals are not the standard of mental valuation.

P. To the same purpose might be adduced the fact that the people of England during their twenty-five years of the suspension of specie payments, ending in 1822, when their standard gold ounce troy went up from the mint price seventy-seven shillings and ten pence ha'penny to eighty-eight shillings, a rise of nearly 13 per cent., must have been estimating their coins by their money of account.

T. We need not pursue the discussion of this subject further now. In the treatment of credit money we may have occasion to supply and amend deficiencies, and perhaps, to correct remaining misapprehensions.

P. I cannot leave the discussion of the money-value question without indulging myself in a laugh at my own innocency of faith when I was an unquestioning believer in the metallic standard doctrine. This is the way it took me: The British coinage act of 1816 directed that the sovereign should contain exactly 113 grains and $\frac{18}{11214}$ ths of a grain of pure gold. I was awfully impressed by the precision of the calculation, and naturally thought that it must be that, and nothing less or more, and that the sovereign must have and hold that precise exchange value through all changes of time and revolutions of business affairs. How could I help it? What was all this ciphering for, if it did not fix a certainty, absolute and irreversible? The laugh came in when I heard the story of a quack doctor who ordered Biddy to "boil a bread-and-milk poultice exactly two minutes and a half by the watch, for everything depended upon the exactitude of the concoction."

"Hivens," exclaimed Biddy, "he calkilates like an angel."

That poultice drew on my money standard beautifully. The precision of the cooking and the minting explained each other.

CHAPTER XVII.

CREDIT MONEY.

T. Coins and their representatives or substitutes, used as a circulating medium of exchanges, are usually described, the former as metallic, the latter as paper money. You will have observed that I am conforming to this usage in the proposed treatment of the function of the circulating note, whether issued by bankers or by government officials.

Promissory notes payable to bearer on demand, issued by a government or by corporations authorized by it, have all the essential qualities of a circulating money. The principal of these qualities is their convenience as exchangers of value. Money being only a medium, it is a thing whose use does not terminate in itself nor bear any relation to itself. Its function is that of an instrument, and the essential quality of an instrument is its convenience and effectiveness in use. Its form or substance, therefore, ought to be varied with its varying adaptedness. If money were a thing to be consumed in use, or to lose its form and properties in its proper service, its representative character would be lost, and it would become a commodity of consumption; and so take the position in exchanges of a principal, and cease to be a representative of value. Its intrinsic qualities, therefore, are not constituents of its functionary quality.

P. Our dictionaries render "money—anything which freely circulates as a common acceptable medium of exchange." It has been defined by its derivation from the Greek *nomos*, law, and is by the same etymology called *nomisma*. Aristotle is quoted for the inference that it has its value from law, and not from nature. You have adverted to the saying of Adam Smith, who regards it as dead capital, and to that of J. S. Mill, who excludes it in his definition of capital. Endless, and to me, confusing definitions have been based upon the word and upon the thing itself. I am glad to get a firm hold of it under the apprehension that it is essentially only a medium of exchange.

T. A medium in any service may be more or less convenient.

There is indirectness in the employment of any intervening agent. There is indirectness in ascending to a story ten feet high by a stairway of twenty feet. All the mechanical powers have indirectness in the application of force: they are mediums of various fitness to the work done by them respectively, and their several qualifications for service are in their conveniences.

D. Then Smith was not far wrong in calling money, as you would call a lever, a dead thing, for an inflexible rod or bar is as dead as a doornail.

T. Smith was not right. That is not dead which does living things, or which under living force multiplies living results. There is something vital in money-power. If you want 100 bushels of potatoes transported from the Pacific shore to New York, sell them there, transmit the money and buy as good ones where you want them. The freight of the medium will cost you a penny or two; the delay, a day or two, or a minute or two; and lo! you have your potatoes in hand. Now, if "there is no work or device in the grave," you must have had a lively servant in your employ. You caught at the analogy of the lever: money has the lever-power, but it is not an inflexible instrument which cannot move without a solid fulcrum and a loss of time proportioned to the weight it moves. If a lever is an instrument, and money is, also, an instrument, they are not hung on the same hinges. Think of the difference in their respective motor powers.

But, to the quality of convenience in money service—it is this that determines the denominations of coined pieces of the precious metals, and the name-value of their paper substitutes. The decimal fractions of the silver dollar are ultimately more convenient than their paper representatives, because they better bear the wear and tear of small change in every-day business. The Director of the Mint, a year or two ago, stated the average lifetime of those little notes, during the suspension of specie payments, at about 18 months; and the cost to the Government of keeping 45 million dollars' worth of them for a year in good repair was about a million of dollars. In this respect this fractional currency was very inconvenient, that is, it was not as good an instrument as small silver coins are.

P. Let me interrupt. What is meant by the *Unit* of value as it is usually employed in discourses about money?

T. It is a necessity; and, therefore, a device of notation, or of computing and expressing quantity in aggregate. The word or figure 1 embraces all the fractional parts of which it is capable, and all increase of that quantity is expressed by so many of its units, or integral groups, or individualities. A sum of money is a certain number of its known denominations, that is, of its units. With us we count by the dollar unit and its parts. In England the pound sterling (worth \$4.866 of our money) is the unit employed. In France it is the franc (about 19 cents). In Brazil the real, or for convenience the milreis (1000 reis), worth about 54 cents, is in ordinary use. The milreis of Portugal is worth twice as much (\$1.04).

The pound sterling is awkwardly large for the expression of small sums, for which reason the English make a sort of unit of the shilling, for convenience; as, instead of two pounds and a half, you will hear them say fifty shillings. The French franc is inconveniently small for the enumeration of large amounts. It runs up into billions in the national debt. In our annual mint reports you will find a table of the various values of the units in use in all countries.

P. Geographical miles, I suppose, may be called units of measured distance; like the units of value, they differ greatly in different countries. It is curious that measures of length should be arbitrary or ideal, or mere mental processes, just as measures of value are. There is another example in the scales of thermometers, as in the Fahrenheit, the Reaumur, and the Centigrade. They, also, take different zeros, and they are at par with each other at different numbers of degrees upon their respective indicators. The ideal seems to rule in the apprehension of the most absolutely fixed and determinate, as well as in the most inconstant quantities and values. It results that the mind is the measure of matter, and opinion has no standard fixed, correspondent, uniform, and universal in the expression of quantities.

T. You have the idea. Nominal values, weights, and measures have dominion in the mind. Indeed all forces are apprehended there, whether material or moral, justifying the saying of the poet,

“The ideal is the real;” and the practical proverb, “Things are just as you take them.” So let us take care how we disturb the tables of weights and measures, and the values of money denominations, as they are in the common understanding. An Englishman counts simple abstract numbers in decimal categories; he counts his fingers and toes by fives and tens. He has that idea of quantities in his head, but when you put him to translating his twenty shillings and his twelve pence into dimes and multiples of them, though they be in his familiar decimals, you bother him. Even in the reports of the London money market you will find our dollar of 100 cents stated at 103, to avoid the trouble of computing it at its exact worth in shillings, pence, and fractions of a penny. In the money article of our newspapers you find this difference between the London and New York reports of the selling price of United States stocks.

P. Circulating notes, having their use in their convenience, their denominations are probably under the same rules as their general use.

T. Yes; this is one of the conditions to be observed in making a medium of them, as a register or notation of exchange values in the transaction of business. They should be integrally divisible, and as readily aggregated into any required sums or quantities. One, two, and five dollar notes answer the purpose perfectly. Of these, all sums, in whole number, up to ten, are readily aggregated; and all intermediate denominations are unnecessary, and, to some extent, inconvenient. Tens, twenties, and fifties are less bulky and burdensome for all the larger amounts which they cover, and are exchangeable into the lesser denominations when required. The still larger notes, hundreds, five hundreds, and thousands are less necessary, and but little used. They carry no interest as the equivalent sums on deposit may do which are subject to draft, and which is just as convenient as the notes are, and even more so. The numbers of the various denominations issued by the National Banking Office indicate the relative requirement by the public. In November, 1879, the number of five dollar notes outstanding was 19,582,364; of tens, 10,973,624; of twenties, 3,632,608; of fifties, 426,498; of one hundreds, 269,116; of five hundreds, 1283; of thousands, 283. The ones being largely supplanted,

or supplemented, by the silver coins then in use were only 3,567,200 in number; and the twos but 1,046,249, because, as I suppose, the one dollar notes usually replace them in use.

P. To provide the money of the realm is held to be the prerogative and the duty of the sovereign authority. If so, the government should take care to make the supply adequate in quality and convenient in kind for all the purposes of business.

T. The manifest insufficiency of metallic money in all commercial communities requires the deficiency to be made up by credit money, of which the circulating note is an important portion. It is that part of the money of account that the convenience of business, without personal credit, requires. Such deficiency of circulating money need not be closely calculated; it is enough to show that it is very considerable. The Comptroller of the National Bank Currency reports an aggregate of outstanding notes issued by the Treasury (greenbacks), and by the national banks on the 1st November, 1879, at \$699,634,759; but this sum embraces \$15,710,960 in fractional currency. I think it safe to subtract from this total so much for the probable loss of these little notes as will leave it at 694 millions.

The estimate of the gold and silver in coins and in bullion in process of coinage at this time is \$481,700,000. These sums amount to say 1175 millions in round numbers. This gives us the proportion of paper circulation as 59 to 41 of coin, or nearly as nine dollars of paper to six of coin.

But there is, besides, a specific kind of credit money in circulation as effective as that in the form of circulating notes. This is in the deposits in the banks and other money institutions. The Comptroller of the National Currency states it thus:—

Deposits in the national banks,	. . .	\$713,400,000
“ in State banks and private banks,	. . .	397,000,000
“ in savings banks,	. . .	783,200,000
		\$1,893,600,000
Now add the note circulation,	. . .	694,000,000
		\$2,587,600,000

This gives us a provided circulation of notes and deposits, convertible into coin, of a sum no less than 2587 millions against the

gold and silver coins, amounting to 481 millions (supposing the two kinds to be proportionately in use and in reserve). The former, 84.32 per cent. of the total, and the latter, 15.67 per cent.—something more than $5\frac{1}{3}$ to 1.

These figures, which are the only data we have, manifest the utter inadequacy of the specie in use for the service required of circulating money.

P. More than three thousand millions of effective money in circulation!

T. The census of 1870 estimates the stock of marketable values in real and personal estate at thirty thousand millions. The tenth part of this property, bought and sold, would swallow up the three thousand millions. Beside this the census enumerations of other values,—the products of the current industries, with wages of all establishments, make a total of 11,360 millions. How much more will you allow for professional and official fees, for travelling and freight expenditure, for rent, for boarding, church, and charitable contributions, and for festivities, theatrical and musical expenditure,—all, and many another employment and enjoyment, requiring current money? Shall we lump the account current at twenty, thirty, forty, or fifty thousand millions, and then see how our three thousand millions in the money exchange service meets the requirement; and, more especially, how the sum of the money meets, measures, and controls the sum of the prices, according to the famous equivalence doctrine?

D. If the money goes into the service six or eight or ten times it would cover the demand in payments, though it might not regulate the prices current by the proper force of its simple quantity.

T. Are not all commodities and services paid for in some way just as often as the contracts of exchange are made, and is not the sum of these payments exactly equal to the sum of the prices of the things sold? The same coins, and coin-paying notes, are put upon duty, if you please, twelve or twenty or fifty times in payments, but these notes and coins are purchased and paid for every time they are used. Don't forget that business in civilized society is not direct barter, that is, money is not present in a hand-to-hand exchange when its denominational value is named. Put it to such service; if its quantity could be enhanced to the vast requirement,

instead of being a facility in the transfers of business, it would cost in time and toil more than any other tax imposed upon property. All that it does not, and in the nature of things cannot do, is accomplished without its intervention by that other agency which we have called money of account, and which for the most part is settled by set-off, in which nothing is used but the name of money as a system of notation.

P. I understand you to mean that if a dollar is transferred ten times, its purchasing power is not multiplied ten times by counting it over and over again, as against the *principal* or prime value of the things purchased by it, because they are multiplied just as often, and, therefore, the innate power of three thousand millions of it cannot be made to meet the innate cost-power of thirty thousand millions worth of commodities; and I infer that it is a medium only in the exchanges which it is actually used to effect, and that all the other twenty-seven thousand millions are negotiated without any agency of the money represented by coins and circulating notes. The drafts, cheques, and book accounts which do this large business, are a sort of mediums or sub-mediums, or ancillaries in the common service, and are equally effective, though not warranted by any public or corporate guaranty. Moreover, I infer that the true idea of a medium is not in its substance, but in its service.

P. Experts have estimated the amount of the gold and silver coin in the country in 1860 at 200 millions. In the 20 years since the production of above 1270 millions worth of these metals from our American mines is reported. This sounds like an overflow. What has become of it? How has the demand met the supply? It has not raised prices—they have fallen; and the paper money substitutes have risen from 207 millions in 1860, to, you say, 694 millions. I have been ciphering till I am tired and out of patience with its results.

T. So far as your data go, the influx is easily disposed of. The principal or fund amounts to 1470 millions. Of this, 910 millions excess of exportations to foreign countries over imports from them leaves but 560 millions. Take from this the 481 millions on hand and you have but 79 millions for consumption in the arts and manufactures,—not quite four millions averaged per year,

which is not nearly half enough; but the deficiency may be supplied by the money brought in by immigrants and travellers, which is not reported at the custom-house. None of these items, official or estimated, are accurate enough, or can be so, to render cipherings about them into certainties.

P. The specie circulation is certainly more abundant than at any date before resumption. The silver dollars are complained of in the banks and in the Treasury as a burden; it is spoken of, not in thousands or millions, but in tons, and you cannot get greenbacks or national bank notes in large quantities for gold coins. Does not this state of things indicate an overplus in the supply of coins?

T. Not of itself. The notes are now at the par of gold, and the *convenience* of the paper in use explains its preference.

P. I thought the paper dollar only served to make up for the deficiency of the metal dollar in the equalization of the current exchanges of business; but it seems now, that it supplants the weightier medium in use, naturally enough, to be sure, for the bank note at the par of gold is in fact an order for the gold wherever you may want it; and this, I suppose, is the meaning of the gold and silver certificates of deposit given in the Treasury reports, and I observe that the sum in silver certificates is usually nearly twice as great as of those of gold—the silver is so much more inconvenient than the gold,—still, the supply of paper money has fallen off quite 90 millions in the last six years. What does that mean?

T. The number of national banks is now above 2000, and there are more than 4000 State banks, private bankers, and savings banks besides. All these money institutions are clearing houses for their respective districts, and the larger ones for the whole country in effect. In them, and on their books, debts and credits are set off against each other without the intervention of either coins or notes, and thus tend constantly more and more to displace the common medium of payment. All advancing improvement in the order of business is marked by a proportionately diminished cash circulation in the transaction of equal amounts in commercial exchanges.

P. Haunted by the commonly-received doctrine of “supply and

demand" as a regulator of prices, the wonderful yield of the mines of California and Australia threatened, upon our theory, such an overflow of the precious metals upon the commodity market of the world, that we feared the *precious* would soon sink into the rank of the *useful*, and be "nothing accounted of" except for their qualities of texture and resistance to wear and tear in implements, utensils, and ornaments. The facts developed and suggested by such inquiries as these drive one upon estimates of amounts as a way of getting comparative quantities. The present yield of the mines of the United States, Russia, and Australia may be put at 180 millions. The director of the mint thinks the consumption in Europe and America in the arts and manufactures is from 45 to 55 millions of gold, and from 25 to 35 millions of silver, together 70 to 90 millions, or nearly the half of the annual product. And there are, besides, the vast populations of India and China, which for a century have absorbed from 20 to 40 millions of dollars worth of silver per annum. I suppose that the expansion of commercial exchanges which the influx of money induces will provide for it.

T. Adam Smith observed the fact that the importation of 120 to 140 millions of francs per annum for more than a century, helped by a vast amount of paper money in that time, had not depreciated the exchange value of the precious metals in Europe. On the contrary, the prices of commodities had fallen very considerably, as measured by the stock of the medium in use.

I do not think it at all probable that any yield of the mines yet to be opened will so diminish the exchange value of these metals as to carry their ratio below the decline in the prices of products that shall in future be confronted with them.

Among the apparent mysteries of metallic money is this one: its exchange value is not governed by its quantity. Its scarcity and its abundance are not subjectively operative, but are only relative to the supply of its substitutes, or the means of payment that may be made to replace it. The fluctuations in its currency effectiveness depend upon the credit-money, or upon the credit of the credit-money in the business market. Lessen the stock of coins in circulation within any reasonable or probable limits, you only call into use so much more credit-money, which in all its kinds works in commerce by way of set-off, and so far diminishes

the demand for coined money. Increase the stock of coin as much as possible, and so far as it is conveniently available, it merely substitutes cash for deferred payments. The digging for the precious ores is not ever among the positive and independent causes of expansions and contractions of market values. Its results cannot over-match those of the thousand and one industries that are working the other way, and cheapening the things for sale faster than the mines can cheapen their output. The standard, as it is called, does not more affect the weight which it is supposed to lift than the weight affects it. That "engineer is hoisted by its own petard."

D. I thought you would make the money of the country non-exportable; that you would even debase the metallic required for domestic use rather than risk the effect of its certain departure from its duty as a medium of exchange. If so, a rise or fall in the tide of its influx cannot be insignificant.

T. The paper money in circulation is in itself non-exportable, and the coins, if need be, should be protected from the melting-pot and from exportation. Bullion is a commodity of commerce, and all the precious metals in that form, and all excess of coins made from them, may go abroad as freely as cotton or corn. But I would have enough money active at home to support its industries and enterprise; and I would have that money stable and pliable to the exigencies of commerce. I would protect business from the ups and downs of a fluctuating fund of current money, that, among other good results, debts may be paid in the values at which they were contracted. I would not have profits and losses on a perpetual see-saw of chances. I prefer the regular rule of law to the happening of a lottery in the issues on which men depend for their welfare. It is one of the chiefest of the equities which civil government is bound to secure to its subjects, to maintain the validity of contracts. And this can be done only by maintaining the nominal at the exchange value of the money of the people.

If money shall become cheaper in exchange for labor, as it must when the world grows more wealthy, the change or the depreciation is just what happens to all other property; and government is not under any exceptional obligation to keep old

debts unimpaired amid the decline of all other things of value. The fixed property in land and labor-power must, and should, by the expense of their improvements, and through those improvements made more and more effective in service, rise relatively to the prices of the things which they produce; among which are money and money claims. But such change is gradual, and does not affect the current credit values in which ordinary business is conducted. "The mills of the gods grind slow," and the world has time to be ready for the grist. Let there be steadiness in change, growth without shock, in the provident arrangements of societary life.

CHAPTER XVIII.

BANKING.

T. Of course we do not intend in our discussion of this subject to treat it as if we were producing a system such as might be a directory for the conduct of bank officers. We are neither required, nor are we competent, to perform such a task.

Money banks are of several kinds. Observe, however, that we do not give the name of bankers to the mere custodians of cash, who keep and return the identical sum or substance in bulk without use. This is only another way of hoarding, and has nothing of the function of banking in it. The institutions that fall properly within the name may be classed as of two kinds only, though neither of these has an invariable character. They are sufficiently distinguished for consideration as Banks of discount and deposit, and Banks of issue.

One of the earliest banks of deposit (which must also have loaned its funds at a discount for the use) of easy reference is that mentioned in the gospel of Luke (chap. xix. 23), in which money was deposited so that the owner, after an interval, could receive it again with usury. Such banks, doubtless, existed long before the Christian era, for the very earliest organization of commerce required a money-exchange corresponding to the co-

existing commodity-exchange. Such banks held the money left with them, and of course issued some sort of certificates of the deposit, and these evidences may have been made negotiable, or even payable to the bearer.

P. Some of our banks do not pay interest on deposits. I believe very few do.

T. The deposits in our banks are largely credits to their customers, and of course do not carry interest in their favor. Deposits of actual money are received to be returned on demand, and the banks pay themselves for their trouble and risk out of the interest which they derive from the use of such money in their ordinary business. I do not know any bank whose sole agency is in the holding and returning the money intrusted to it, upon any other compensation than its profit in the use of the fund. Banks of deposit are, therefore, better described as banks of discount and deposit.

P. You seem to regard these banks as indispensable.

T. They are certainly inevitable. Society has never been without them in historic times. The business of collecting and distributing the spare money of people who had it in use as a medium of commercial exchange has always existed.

D. The depositary does not increase the stock of money by merely handling it. The banker's chest is not a nest in which it breeds or increases any more than it does in the pocket or safe of the owner. In union there is strength, but can this be said of the gatherings of money in hands that do not own it or employ it in further production?

T. There is a maxim of the common law, usually expressed in Latin, but which I suppose might also be found in the Sanscrit or even in the Mohawk tongue, "that which one does by another he does by himself." The banker is a collector and distributor, as the clouds, the rills, and the rivers are. The rills that a dead leaf might obstruct make the rivers, and the rivers repair the waste of the ocean. The currency that floats the commerce of continents, struck stagnant, would evaporate into thin air. It is the accumulation that gives it serviceableness. The deposit banker is the little river that gathers the rills into a tide of effective force, and

he disperses them again in currents that irrigate the sources from which they came.

D. Similies used in didactics, though something like, are not as clear, nor always as safe, as object teaching. They task the learner to find the correspondences, and he may miss them.

T. Allow the assumption that hydrodynamics would help, not embarrass, the apprehension of a currency of another kind. It suggests the tributary supplies of the many rills, their accumulation of force, the effect of their distribution, and allows also for the obstacles, drains, riffles, falls, and overflows, and so is illustrative of their counterparts in the conditions and accidents of the money circulation. It will, however, promote our aim to trace the commerce in money in narrative plainness.

P. Yes; it seems to me that elementary instruction is often cut in chunks too fat for easy digestion. Nothing is lost by well adapted amplification. The time and trouble of the outfit saves as much and more on the journey. Too much compactness gives only the more trouble in the unwinding.

T. Well, then, to begin at the very base of the edifice:—Imagine a condition of society in which coins of the precious metals are employed just as other commodities are in simple barter; the coins, or their material, present and passing from hand to hand in every payment made. Here we have no banker or banking function interposed. Every man keeps his cash in his own custody. There is no credit nor confidence, and there are none of the risks, as there are none of the conveniences of a credit system. In this state of things it is obvious that money must lie idle in the hands of the owners during the intervals between sales and purchases—in a state of suspended animation, useless to the possessor and to the community—a fruit of labor not fructifying; in garner and not growing; the mummied remains of a vital organism.

Now, suppose that the owner of the fund desires to improve it; to have it active in his own service and in the service of the community which requires its instrumentality in productive industry. (I wish I could make the word *productive* mean something of growth, increase, new creation.) Its employment for use is in its conversion into other property yielding profits to himself and to others, who will hire it for its active power. He can so use it

himself only to a very limited extent. He is not skilled in every kind of production of which his money is capable. The amount in his hands is too small to be available. It is useless. He can make nothing of it. But there is a depository at hand that can make forces out of fragments. The banker gathers it as the harvester gathers the multitude of grain stocks into bundles, or he gathers the little rills into currents capable of moving the wheels of business. The wonderful result is indicated by the report of the Comptroller of the Currency. On an acknowledged deficiency of returns he reports in the year 1879 an accumulation of deposits of above 1100 millions in the State banks, private banks, and savings banks of the United States. (The deposits of the National banks are not included in this sum, because they may be supposed to consist more largely of credits.) It is safe and much within bounds, to say that a thousand millions of dollars are thus gathered from dribblets of deposits, and made active in the general service through the agency of bankers, which would otherwise be useless and profitless in private hands.

The reported capital employed in all our manufactories is just about twice this amount. Thus, half of all our industrial establishments draw their resources from this source, and one-fourth of all their products are due to it. This proximately measures the cumulated force of the thousand contributory rills of idle cash to the motor power of industry and commerce.

P. What position do our savings banks hold in the common money service?

T. Some of them take deposits on time stipulated, and lend money on landed securities, which is not banking in its present usage. Some deal in accommodation paper, as do also some banks of issue; but this is bad banking generally. It is not a discounting of paper coming due which will be met with products in the market. It may, indeed, represent available values, but it may, also, be a provision for old debts, and, so, not an accruing source of payment. Accommodation paper does not represent the anticipation of products, but a balance due on past transactions, whose security is in the present solvency of the borrower. He may be able to meet the engagement, but it must be from past earnings which he expects to realize, but are not presently available. The

eminent function of banking is the anticipation of payments, not adjustment of subsisting and outstanding or over-due debts. Business exchanges are movements in what people are doing, not in what they have done. The business medium is not a matter of epitaphs, but of life histories and affairs. Banks which lend money on landed securities cannot have the fund so invested to meet their own debts and demands. So far they are mere money lenders, and not banks, in the current meaning of that function.

P. The banks of your first-named class—banks of discount and deposit—by issuing certificates of deposit, and by paying checks and drafts, give circulation to the money of account.

T. That was an early form of the money agency, out of which the greater convenience of the circulating note has grown. The common text-books and general histories, noticing the fact that two or three centuries ago the institutions which we now call banks did not exist, inform us that so lately as the time of the restoration of the Stuart dynasty (A. D. 1661) the goldsmiths of London kept the cash of the commercial houses, paid their drafts, and loaned balances in their hands, paying themselves for trouble and risk out of the interest of such surplus of deposits as experience showed could be loaned consistently with the solvency of the bankers.

P. I observe, in the Comptroller's report of December, 1879, a summary of the corporations and private bankers, who are money dealers in various ways, which, I suppose, are all engaged in collecting and distributing the spare money of the people,—all borrowers and lenders, depositaries and discounters, active in keeping it in circulation and in use. In this statement there are, outside of the national banks, 1005 State banks and trust companies; 2634 private bankers; 29 savings banks with capital, and 644 savings banks without capital,—altogether holding an aggregate of deposits amounting to 1180 millions. If we add to this sum the deposits in the national banks, we have a grand total of 1893 millions.

T. Let me explain, to the purpose of the point now under consideration. The Comptroller of the Currency, under an act of Congress, is required to collect and publish the statistics of the money institutions of the country which are not under his control,

and whose condition he is obliged to gather from any and all available sources. He has several times complained of a very considerable deficiency in the data so obtained. Many of the States, especially those of the Northwest and South, do not require reports from their money dealers; and the Comptroller of the National Currency, after several years of unsuccessful endeavor, has adopted the register of the internal revenue department of the general government as the most reliable, so far as it goes. This is official, and certainly not exaggerated, because the amounts are taken as a basis of assessment for taxation. If, in England, a full fourth of the subjects of excise contrive to evade reports, how much more so in our widely extended dominion, where internal taxes are not only unusual and unpopular, but are as often as possible resisted and evaded.

Moreover, vast sums passing through the hands of depositaries, are entirely out of the reach of government officers. There are uncounted millions collected in trivial sums, and invested by the custodians of secret, charitable, and religious societies. As a hint of the purely secular and business associations, take the building associations of a single city—Philadelphia. At a meeting of the Social Science Society in May, 1876, it was stated that there were then in active operation in Philadelphia 450 of these associations; their loans on mortgage security amounted to 72 $\frac{3}{4}$ millions; and their receipts, during 1875, rose to more than seven and a half millions.

You will observe that, in summing up the deposits reported by the Comptroller, I used his official figures, allowing an abatement for that part of them that may be mere credits on the books of the bankers; and, so, not representative of their collections of spare or idle cash from the people. I now suggest that the uncounted and unreported may be safely taken to replace and even over-balance all these deductions. I believe that the grand aggregate of these collections and loans hovers about a total of two thousand millions. Now, mark, the reported capital of all the manufactures returned by the census officers in 1870 was 2118 millions, and the value of the products twice as much—4232 $\frac{1}{2}$ millions. May we not conclude that the money, which would be otherwise idle by the

intervention of bankers, is made active in moving nearly all the enterprises of our productive industries ?

P. Do I understand you to mean that the employment of money, immediately or directly by its owners, in the production of commodities, is an inconsiderable and almost an insignificant part of its work in the hands of those who hire its use ?

T. I think so.

P. Then it seems that money, which Adam Smith, following David Hume, calls "dead capital, and but a small part of the capital of a country, and always the most unprofitable part of it," turns out to be a very lively thing in use, and a productive agency of very great potency. What could have induced J. S. Mill to say that "money, as money, satisfies no want, answers no purpose ?"

T. No amount of intelligence, or of critical acumen, prevents a hackney logician from taking the bit in his teeth and running away with the driver. Mill's definition of political economy is the point at which his pony started. Recollect that he says "It is an abstract science ;" and that "it reasons, and must necessarily reason upon assumptions, not from fact." That conception put him above facts, out of the way of facts, and opposed to facts. He does not allow money any place in his definition of capital. He does not treat it as an instrument by which men acquire and exert power over the forces of nature ; yet he accords such agency to the labor, food, and clothing, which money supplies, in all the processes of industrial production !

P. Is there an exact and instructive analogy in the circulation of the blood in the animal frame to the circulation of money in the body of the community ?

T. The idea of the money circulation, with its allusions to the movement of blood in vital organisms, has certain striking correspondences. Blood is circulated as the conveyer of nutriment or material for the manufactories of the living system ; it is, besides, a stimulant of the vital functions. In these offices the analogy authorizes the interchangeable use of the word. There is in both the like required constancy and sufficiency of supply. But there are differences between these two circulations which must be noticed, as well and as carefully as the real correspondences. From

greatly increased force of propulsion and inordinate rapidity of the blood circulation mischiefs result, for which there is no proper parallel in the money movement through the channels of business. Momentum, or the weight multiplied by the velocity of the vascular circulation, besides quantity in relation to time,—so many pulsations to the minute—means force of impingement and pressure upon the vital organs. There are no such effects attending an accelerated movement of money—nothing corresponding to plethora or oppressive engorgement. It does not gorge its receptacles; nor, as a result, does it morbidly exaggerate or repress the agencies to which it ministers.

D. You surprise me. Have I not heard of an inflated currency, inducing speculative prices? But, your doctrine does not admit of an over-supply of money. What then is the meaning of sudden expansions and contractions of the circulation, and, the business revulsions attending them?

T. The panics and pressures of the markets have not been occasioned by, or attendant upon, the conditions of the thing which you and I are thinking of, when we are considering money in its normal functions. The money system can take care of itself, under legitimate administration; which we will show when we come to the subject of banks of issue. The outbreak of the disturbances which you speak of, usually takes its earliest form in a panic; that is, an opinion, which works itself into a pressure, the pressure being a rebound of opinion. This can happen disastrously in any mode or condition of the credit system. When faith fails, dependent facts follow as a consequence. When I speak of the money circulation and its laws, I am talking about a veritable money, as when I speak of the blood circulation, I do not mean the arteries and veins crowded with whisky, or overloaded with water, or any other abnormal mixture. An inflated currency is a circulation filled with air bubbles, which will not bear the pressure of its channels. It is not a healthy medium, but a currency in fits, marked by froth and jerks, speculatively inflicted; an airy nothing, which has not its cause in substantive things, but in notions of such things.

D. Bankruptcy and ruined fortunes that were sound yesterday

and beggared to-day are very real things, and have their causes in the conditions of things in which they arise.

T. Morbid visions and insanities are as real things, and arise out of the conditions of things. When a man finds himself turned into a tea-pot, or feels a shoemaker at work in his stomach, he has probably mistaken the occasional cause of his distress. It is not his natural diet, but the flatulence of indigestion that produces the results complained of. You are not afraid of ordinary changes in the supply of metallic money. Nobody ever thought of attributing sudden business inflations and contractions to that cause; and credit money limited to and coextensive in quantity with actual exchanges, to which it is very capable of accommodation, is as well based upon real values as coin can be. It is, in fact, and in its nature, a better measure of exchange values than the arbitrary prices of coins are. The former is the express image of the things which it represents, while coins carry with them nothing so exactly as the symbols of sovereignty—the head of Victoria or the American eagle stamped upon them with a die.

BANKS OF ISSUE.

T. We have already noticed the rudimentary form of the banking system as it is authoritatively given in the Gospel of Luke (xix. 23.) Another allusion to it is found in Matthew (xxi. 12), where the “money changers” are found exercising their trade in the temple at Jerusalem. In the former instance the business is styled banking, and the description is of a bank of deposit paying interest, and, of course, lending the deposits at a higher rate, as is the usage of the simplest form of savings banks in our own time. The money changers of the temple seem to answer to our brokers. From the necessity of such functionaries, wherever money has been in use, we infer their existence coeval with the exchanges of business traffic in times long before the dates we have cited as matters of familiar historic record. Borrowing money upon mortgage security is mentioned in Nehemiah (v. 3–11), 415 years before the Christian era; whether from private bankers or from partnerships, authorized by public law, is not stated but the instances admit of either form of brokerage.

After the Christian era, about the 8th century, in the time of Haroun Al Raschid, banks and bankers are spoken of as existing in Persia, India, and Arabia, just as they are spoken of in England in the reign of Charles II., A. D. 1660–1685.

But through the inexactly distinguished or bordered, dark, and middle ages (the period from the fall of the Western Roman Empire in the 5th century (476), to the latter part of the 15th, by some fixed at 1453, the time of the fall of Constantinople, by others at 1492, the date of the discovery of America), such institutions as we now call banks of issue had not come into existence. In fact, the first of these establishments or companies was the Bank of Sweden, which commenced the issue of bank notes proper in A. D. 1658, that is, promissory notes payable to bearer without endorsement, of uniform amounts, fitted for general circulation.

The Bank of England, which went into operation in 1694, in the reign of William and Mary, issued notes of very limited circulation, in denominations of 50 pounds (\$250), and upwards. These could not be called a common currency. Although having the form of circulating notes they were, in effect, rather certificates of credit than a money of currency.

P. But were there no circulating notes in convenient forms and denominations for common use before the end of the 17th century? Gunpowder, the mariner's compass, the art of printing, National debts, post-offices, were in existence then; and Spenser, Shakespeare, Cromwell, Milton, Locke, and Bunyan had lived and illuminated the time; and Newton, Defoe, Addison, Pope, and Berkely were born before the bank note was made a medium of exchange; and Dr. Johnson, David Hume, Goldsmith, the family magazines, encyclopedias, and the modern newspaper started into full life in the immediately preceding generation.

T. Civilization, or in better phrase, well ordered association in communities, must needs have attained considerable advancement before the best instrumentalities of social and business interchange could be invented. Discoveries of great practical use arise out of the conditions that demand them and can use them. That is the key to all the preferred and permanently used facilities of commerce.

The invention of bills of exchange is commonly attributed to the

Jews in the middle ages; only, I suppose, because these people were dispersed among all the progressive nations of the earth; and being held together for all purposes by unity of faith and interest, they were in the circumstances to make of themselves a universal bank or association of bankers; and were well fitted for that function by the marked characteristic that they have ever been dealers in money, as distinguished from producers and dealers in other commodities.

These bills of exchange were written drafts, cheques, or orders, made payable at considerable distances from the places of issue, commonly in foreign countries. They secured payments without the transmission of coined money, just as bank notes do within the range of their circulation; but they differed from the bank note in that they were orders for payments in bulk, that is, for round or indivisible sums of money, and, in consequence, were only suited for mercantile transactions or remittances of specified amounts, and were not adjusted to such a varied number of pounds, ducats, or dollars as are required for ordinary business payments.

These bills of exchange could be made payable on demand, as our ordinary bank note is, or on time, as a post note is. Thus they were not much unlike the larger bank bills at first issued by the bank of England. The circulating bank note, intended for domestic commerce, was thus prefigured and suggested by the bill of exchange, which still serves the purpose of foreign commerce, by its special adaptedness to that service.

P. The Jews, I suppose, got the credit of the invention from the circumstances that they had their correspondents everywhere, and had their inducement, in the profit of the business, to engage in the sale of exchanges more extensively than others could. The employment of the like mode of effecting payments abroad would naturally occur to any merchants and money dealers who had foreign correspondents at command. Many reputed inventors of other conveniences, have no other title to discovery than an effective and general introduction of their machines into common use, if we may credit the usual disputes and contests of claimants, which occur even in the sciences, arts, and literature.

D. The Bank of Venice was founded in A. D. 1171; the Bank of Barcelona in 1401; and the Bank of Genoa in 1407: all of

them several centuries before the Bank of Sweden, and that of England.

T. These institutions called banks, were for the most part created for, and served only as, fiscal agents of the governments which established them. They united with this political service, in several forms and degrees, the office of banks of deposit, but did not otherwise contribute to the convenience of commerce, or the ordinary service of the people. For instance, the earliest of these, the Bank of Venice, was based upon a forced loan of that aristocratic republic. Funds deposited in it could not be withdrawn, but the property in them was transferable on the books of the bank at the pleasure of the owner—a sort of stock subscription, differing in nothing important from the relation of a stockholder in a modern corporation. The subscriber, or his assignee, derived his profit from the premium which these inscriptions of credit commanded above the current coins, which were greatly depreciated by clipping, wear and tear, to which they were subject, and which often reached ten per cent. of their nominal value; and he received interest upon his stock or deposit guaranteed by the government. These conditions made the investments popular, as they were profitable and safe. The rate of interest is stated at 4 per cent., which was far below the customary charge of that day, but the stockholders were indemnified for the difference by other advantages.

By the way, perhaps the earliest instance of the foundation of a national debt, is found in the creation of the Bank of Venice. The policy and the conduct of the bank was of course modified in the course of time by increasing the service of which it was capable. It continued in existence and beneficial operation 626 years without interruption, till the overthrow of the republic in 1797 by the revolutionary army of France.

P. It is stated that these bank credits went sometimes up to 30 per cent. above the par of the coin then in use. How could that be possible? Does it not indicate a fearful influence over the interests of the public by such a national bank?

T. The premium did go as high as 30 per cent. over the current coins, until the government limited it by decree to 20 per cent., at which it continued permanently fixed so long as the bank

existed. In the light of this fact, think of a supposed standard of value.

The unit of the money of account was the ducat. Venice had a gold coin of that name which was held in high repute for its purity. Don't ask me what it was worth. Nobody knows. Certain it is, that the quality of this coin could not have been in any way concerned in the agio or premium, for no coins passed in the transfer of the bank. Values were not measured by them. *They* were measured by the money of account.

P. Could commercial business be conducted for 600 years upon credit estimations alone without being gauged by money in substance?

T. It was done so; else the system which had no standard in metallic money could not have been maintained through half a dozen centuries in the grandest mart of commerce existing in the middle ages. It was done as the vast business of the present day is done, by set-off. In the clearing houses of London and New York, hundreds of millions of debts and credits are settled every day with balances not exceeding five per cent. of their totals, and even these balances not paid in money. They are met the next day by claims which cover them. It is all credit. Surely, if the whole community of business people could get their credits set off against their debts they would not need, at the utmost, to receive more than their profits in money, and only a fractional part of these profits for current expenses that cannot go into clearing-houses for balancing. The business exchange, through any means or medium, is at bottom, nothing but barter by indirection. *Any* money of account is better for this purpose, and effects its ends and objects with less trouble and expense, than gold and silver can do.

P. The wonder-working of the clearing-house by means of set-off is clear enough in statement. It seems adequate, and the understanding can grasp it as well as numerals represent millions and myriads of quantity; but one must be familiar with the idea before it serves at every application in resolving difficulties, especially when it displaces and reverses preconceptions of values in exchange. But how does this set-off agency bear upon the sur-

prising problem of the *agio* in favor of a credit or ideal money over the tangible instrument of commerce?

T. In the process by set-off—that is, in the balancing of debts—the instrument, or medium, or means must hold the rank of a standard. Shake yourself free from the notion that any particular medium or convenience of any one kind is intrinsically and exclusively the equivalent of a debt or of a purchase price. If any one will pay your debts and expenses by exchanging them for the debts or income due to you, are not the mutual accounts settled and extinguished without anything passing between you that is called money having either an intrinsic or representative value? You may use a medium for this purpose, but by set-off you go farther and fare better, by getting rid of the medium itself. You get back to barter, which is the soul and essence of commerce.

The credits of the Bank of Venice were par in payment of all debts, absolute and unquestionable. Gold and silver even quoted at the par of the bank inscriptions were not nearly so convenient. This high grade of the bank credits was one of the elements of the *agio*, or premium, which they carried.

P. But it would be a very inconsiderable one in the great sum of the premium if the current coins were worth their nominal value in the ducats of the bank's money of account.

T. That is just where the other element of the premium comes in, an accident or condition to which all metallic money is more or less exposed, for it has a variable exchange value. Beside the ordinary causes of change in the price of the precious metals, due to their varied cost of production, Venice, during most of the lifetime of the bank, had a world-wide commerce. For nearly two centuries—1096 to 1290—it was a station of the Crusaders of Western Europe, and all the coins of Christendom were poured into her market. These coins were of every imaginable mintage, and, besides, were debased and worn so much that all the skill of an expert was required to settle their value. For common use they were scarcely passable. They had lost the basis quality of money—its convenience. An English writer of the 17th century said: “The inconvenience and mischiefs that the currency of clipt and counterfeit money necessarily occasions are so manifest to everybody that it is as needless to point at any of them as it is

impossible to enumerate them all. It violates all contracts, and alters the measure of trade, breeding confusions in all commerce, etc.”

Indeed, the nuisance of a coin currency was the impulse, above all others, that set Europe in the 17th century upon the enterprise of establishing banks of deposit, in which the coins might be placed, once for all, out of the reach of the clipper and sweater, protected from the abrasion of use, and safe from debasement, only too frequent, by the governments. A 20 per cent. premium upon the bank credits over such a motley hoard of trash, as all these causes would bring upon Venice, taken along with the valuable service of the bank, in the security and negotiability of its credit money, is credible enough to any one who has ever handled a defaced Spanish quarter, or eighth or sixteenth of a dollar piece.

P. The history of banking as you present it provokes inquiries which, perhaps, do not fall into your train of thought, and I hesitate to divert you by questions that may not be relevant.

T. I do not occupy you with a history of banking. That you must look for in books and treatises written with that intention. I only notice facts that serve to elucidate the theory of currency, and so endeavor to keep within the limits of our discussion. Only too much of narrative invades our line of remark. I wish to impress upon you the uses, the conveniences, and the adaptedness, of the mediums employed in the exchanges of business.

You will notice the fact, for it is important to us, that the Bank of Venice, by a forced loan of the government, made the public debt thus contracted the basis of the currency of the Republic, and that although the process was despotic and had in it the nature of wrong, it at last adjusted itself happily and beneficially to the best service of the community, and came in good time to command the acquiescence and cordial support of all the parties concerned.

A striking coincidence occurs in the history of our first United States Bank. Let me give an illustrative incident, in brief:—When General Washington was on his way to his first inauguration at New York he met Robert Morris, the financier of the Revolution, in the presence of Bishop White, in Philadelphia. Impressed by the great question of the time, he said to Mr. Morris,

“What can be done with our terrible debt? (terrible for the time and circumstances of the new government—it was fully 75 millions of dollars). Mr. Morris replied, “Having frequent occasion during the war to consult Colonel Alexander Hamilton upon the most effective devices for meeting the exigencies of the time, allow me to refer you to him for an answer to your question.” Washington, not a little surprised at so confident and so respectful a reference to his private secretary (his amanuensis; a youth who had only distinguished himself as a field officer and tactician), by the most competent adviser that could be found, immediately called Hamilton to a conference, and bluntly put to him the question, “What shall we do with our terrible debt?” “Bank on it,” said Hamilton; “our debt is the only capital that we have, and is the best of all securities for a banking basis—the faith of the nation, and through that faith, the whole property of the nation and all the prospects of the country, is an unquestionable pledge of eventual solvency; and will be immediately and concurrently an instrument of the common business of the people needing such aid and support.”

The issue vindicated the policy fully, and even far exceeded the expectation of the great projector.

Do not forget, or pass lightly over these instructive experiences, but carry them with you, as correctives, in your estimates of credit-money, ideal money, money of account, rag-money, and promises to pay.

Adam Smith compared paper money to a wagon-road through the air, in contrast with a solid, substantial road upon *terra firma*, or a medium of the precious metals. The electric telegraph and the telephone are as much exposed to whatever there is in the comparison, and, for aught I know, the balloon may at last fall into the same predicament.

The American government, having no practicable track for its financial travel on the solid ground of a money pavement, resorted to the airy substitute, and somehow effected its deliverance from its great despair, and from the dissolution of the Union, through financial bankruptcy. The man who divined the situation and the remedy, who, in the language of Daniel Webster, “touched the dead body of the public credit, and it started into life,” was made Secretary of an empty Treasury, and within a period that

was measured by months, not by years, established the credit of the new-born nation, so perfectly that he was able to borrow all the money that he needed in Europe, upon terms as favorable as any established government in Christendom could secure. The condition of living by faith, even in material things, is, keep the faith, fight the good fight, and the crown of victory is assured.

D. You seem determined to shake the maxim: "Pay as you go," from its position in pecuniary affairs. The examples cited seem to have that rather questionable tendency.

T. You seem not to be able to get rid of the idea that gold and silver are the only substantial money medium, or, at least, the only sure basis of a credit system. In this, however, you are implicitly following the doctrine of the "Father of Political Economy." Adam Smith says, oracularly, that "the total paper money which can circulate without injury in a country, can never exceed the value of the gold and silver of which it takes the place, and which, if commerce remained the same, would circulate there if there was no paper money in circulation."

D. Worse and worse! You would make me a heretic to the established creed. Apostasy is apt to call itself liberty, and pardon me, sir, there is some audacity, as well as some insecurity, in thus throwing off the guidance of commonly received opinion and venerated authority.

BANK OF GENOA.

T. I suppose the Apostles were right in resisting the Pharisees, and, that pernicious theories in any department of thought ought to be repudiated. But, to the point of your repugnance. I am not opposing the policy of "pay as you go," if credit money really is payment; and I am right in saying that law and custom both hold it to be so.

Some shallow adviser induced General Jackson, when he was in his fury against the rotten bank system of the States, and especially against the ill-conducted United States Bank, to say that "those who live by borrowing ought to break." To which the reply offers itself, that a man without capital must never obtain any upon the pledge of his integrity, industry, and capacity;

that is, to be born poor is to be doomed to beggary. Fathers and heroes are not always inspired, and the world cannot stereotype the wisdom of any generation of men, until they bring in the millennium, in proof that they are right, and always right.

D. I will drop the debate if you will not construe my silence into assent.

T. The Bank of Genoa was founded A. D. 1407, after a long period of civil, social, and monetary disturbance. The finances of the State were in a wretched condition. Unlike the Bank of Venice, its capital was furnished by voluntary subscriptions, in a clear perception of its promised advantages to the State and to the business people. The contributors did not, as in the case of the Bank of Venice, repose their faith in the Government. They insisted upon the best securities which it could give them for all advances made to it. They organized the best checks which they could devise against its encroachments, and held within their own hands the power and direction of the bank's management—a controlling influence which they maintained through generations of foreign and civil wars. The interest of the money lent to the Government was secured to the bank by the assignment of taxes, customs, and other incomes of the State; and thus, the stockholders were assured of the dividends which the business afforded.

The lire was the unit of the money account, which was held very closely corresponding to the franc of France, worth at our mint valuation about 19½ cents. As a significant instance of the caution observed in the management of this bank, the forms of its books were rigidly prescribed, and these records were annually transferred to another office, out of the hands of its officers, and subjected to inspection and explanation. These regulations were enforced for centuries. The private bankers of the city, also, were placed under strict regulations. The bank shares and deposits were exempted by law from attachment, for either public or private claims.

I have given these, otherwise unnecessary details, for the purpose of showing that this great money institution was treated as a subordinate branch of the civil government, notwithstanding its general independence as a private property; that the common money function might be as well guarded for the benefit of the

public as any other interest of the community, on the ground that the provision of circulating money, and its administration is, and of right ought to be, a government duty and prerogative. This is a point well worthy of consideration.

P. In this respect the former practice of our Federal Government seems to have been strangely remiss. It took care that the materials and weight of our coins should be governed by a uniform national law, but left the regulation of banks of issue to the jurisdiction of a quarter of a hundred separate States in the Union, which acted without concert, and generally without prudence, in empowering their local banks to produce what effect they might upon the paper currency.

T. By establishing the National banking system which has worked so well in the last 18 years, and by taking the State banks out of existence as manufacturers of paper money, the United States government aroused itself to the legitimate exercise of its proper sovereignty; confining the circulating note to its own supervision, and with the greenback issues taking the absolute and exclusive control of the currency in paper, as it always had done in respect to the coinage of the precious metals.

To continue our history of the progressive forms of banking we must further consider the history of this Bank of Genoa. It somewhat enlarged the sphere of service to the commercial community by providing notes that could be used in the larger transactions, and by otherwise relieving the transfer of funds of tedious and troublesome formalities. It did not emit bills of small denominations, nor for uniformly fixed or graded amounts, but in sums requested by the persons accommodated. This is not what we understand by circulating notes. Our forms of the bank note were not yet reached. Such issues were in effect only due-bills or certificates of deposit, and, I believe, were written by the officers, and of determinative and unequal denominations.

P. The public must have had pocket money and pieces suited for use in form of coins for their smaller purchases and payments.

T. Of course they had. But the inconvenience of carrying coins about for the necessary purposes of trade is obvious. It is among us manifested by the fact that the Secretary of the Treasury finds it impossible to keep any considerable amount of silver afloat

in the face of our small note circulation. Two-thirds of the dollar pieces which the mint has been coining under a compulsory act of Congress lie corded up in the Treasury vaults, while certificates of deposit are made to represent nearly one-half of them in business. Even the fractional, or as they are styled, subsidiary coins, are encumbering the Treasury safes. People will not make pack-horses of themselves in the service of a so-called real money. They may wish to be assured that it is in the vaults of the banks for the redemption, or rather for the insurance of their notes, upon the practical principle that if the banks have it their note-holders don't want it, and if the banks have it not the note-holder will insist upon getting it.

You may have endorsed a promissory note to meet the requirement of a money-lender, and never heard of your liability afterwards. That is exactly the service rendered by any surplus of coin in the country beyond the pocket money supply for everyday expenses. The payment of balances of foreign trade may demand bullion, but that commodity should never be allowed to enroach upon the provision of coined money of the realm.

P. You say that the Bank of Genoa had not made of itself a common commercial agent for over 266 years of its existence—not until 1673. How or in what manner was its public service extended at that time?

T. That common nuisance, the coinage of divers mintages, the fraudulent deterioration, and the diminished value, by wear and tear, which was the plague of the Middle Ages, and of all the periods afterwards, before the substitution of the circulating note, made foreign exchange, and especially domestic commerce, a grievance that pressed for a remedy; and, as I have said, was among the most forcible motives which induced the establishment of banks of issue. The great expansion of the maritime and domestic trade in the 17th century imperiously demanded a systematic order of money exchanges. The republic granted to the bank the necessary powers, and went even a step farther than thus gratifying that institution. It made all bills of exchange of any amount, and all other debts over 100 lires (or francs) payable at the bank,—thus making it a great central clearing-house of all debts and credits above this minimum. At the same time the transfers of

its deposits and of the shares of its stockholders were relieved of troublesome, and, in some cases, almost impracticable, conditions. The changes effected made the bank a sub-medium of the money system which put all the more considerable transactions of commerce under an organized central machinery, but left pocket-money loose in its own vagrancy; or, allow me to say, left hard money to perform its hard service as best it could.

D. You are preparing the way for the advent of bank notes by a constant exhibition of all the ills that coins are heir to.

T. It is their inherent, more than their accidental ills, that compelled the resort to a remedy. Their weight, bulk, difficulty of safe keeping, variable value of their metal; their special liability to counterfeiting, to clipping, sweating, plugging, and abrasion, stick to them like original sin and actual transgression. For ostentation they jingle well, and for glitter they are attractive; still, however, I admit that they are great in little things, which is not a little thing to be and to do.

P. The Genoese, then, had in use two kinds of currency, of very unequal value, under the same denominations; and, curiously enough, the coins, and not the paper, were at a discount.

T. The circulation in coins and the money of common accounts was called *fuori banco* (out of bank money). The bank money was called *valute banco*, which was always at a premium, because of its better ascertained and more available exchange value, and of its greater convenience in its special use. We also had a difference in values under the same money-names, when our circulating notes were depreciated. They were commonly called *currency*, to distinguish them from gold and silver, which were then demonetized, and were a marketable commodity of variant price in currency; the premium upon gold ranging, during the suspension, from one to one hundred and eighty-five per cent. So much for *standards* of value in money theories.

It remains to be noticed that the bank-bills of Genoa were only substitutes of notes for coins. They did not add anything to the amount of the existing currency.

P. You say that the coin deposits in the Bank of Venice were not reimbursable to the depositors. How is that?

T. I should have said that the money of the contributors to

the capital of the Bank of Venice was not a gift or a tax in effect; nor yet a loan, of which the principal was to be replaced at a time specified, or at any time. It was a subscription or investment, like that in the British consols, amounting now to over 500 millions of pounds sterling, which do not take the name or character of a debt redeemable, or of a principal payable to the lender, but is distinctively called a *perpetual* annuity; because under the terms of the loan, the government has only bound itself to pay 3 per cent. per annum upon a sum equal to every hundred pounds credited to the holder. The government is under no contract obligation ever to return the principal. The ownership of the claim for the annual interest is transferable. The stock or fund, as it is called, is always salable, but at variant prices. The nominal hundred pounds-worth at one time sold as low as 54 per cent., which raised the interest payable upon the investment nearly equal to 6 per cent. Half a-dozen years ago this fund sold at about 93 per cent. Very lately it has been up to 99, and even to par. These more ordinary rates depend in great part upon the rate of interest which money carries in the market. The lowest rate mentioned was occasioned by the threatened insolvency of the exchequer, or its probable necessity for borrowing large sums at a heavy discount during the war with France.

P. Do national debts sometimes represent a larger amount than the money received from the lenders?

T. Nations have a ruling policy of not paying above a certain nominal rate of annual interest, and when they cannot borrow at that rate, they must take as much less than a hundred for the hundred acknowledged, as will bring the interest upon the sum received up to the current rate. For instances:—

Great Britain borrowed in the years 1781, 1782, 1783, and 1794 £43,500,000, for which she issued stocks amounting to £65,248,000, nominally at 3 and 4 per cent., with terminable annuities added. Here was an aggregate of principal debt sold at $33\frac{1}{3}$ per cent. discount. On a large amount of loans created in 1812, 1813, 1815, nominally issued as three per cents., she received so much less cash as brought the interest on the money paid into her treasury up to $4\frac{1}{2}$ per cent.; and in 1847, 1855, and 1856, she issued stocks to the amount of £34,000,000, at 3 per cent.,

for which she received but £30,315,500—a discount upon the principal of 10.94 per cent., bringing the actual interest up to 3.37 per cent.

In our own troublous time—the year 1861, with the Rebellion on our hands—Mr. Chase, Secretary of the Treasury, sold 6 per cent. loans to the amount of \$60,409,000, for which he received only \$53,813,596, a discount of 10.91 per cent.

P. Is there prudence or policy in such a system?

T. For the policy I cannot answer. It may be, or is, a fancied necessity, to avoid the announcement of an inordinately high rate of interest, and the discount suffered may be concealed or not alarmingly estimated; but when the principle or the debt comes to be reimbursed at its exaggerated amount, and when the real rate of interest that runs upon it are counted up together, the illusion of a nominally lower rate of interest will be seen, if not felt. For a long time the French rentes were sold at 66, which the Government must at last refund at 100, and in the mean time pay 3 per cent. per annum upon the fictitious 34 in her account. There must, I suppose, be something in this policy which has induced its adoption so generally.

P. National debts! They usually hold a higher character than any others. But are there no historic instances of States who have failed to redeem their pledges?

T. Only too many are on that record. Some because they cannot, others because they will not. Some of the States of this Union have repudiated their debts, and counties and cities have done or endeavored to do the like, on one pretence or another. The late Southern Confederacy is utterly and hopelessly bankrupt, but its creditors ran the risk and took their chance. They must abide by their bargain under its obvious conditions. One must not quarrel with the horse he staked his money on because he lost the race.

There is a form of virtual repudiation of State debts that we have heard too much of. Hamilton nobly resisted the effort to disavow the obligations of the Revolutionary Government, to the extent that it was contracted in the depreciated currency and high prices of the darkest day of the great struggle for our National independence; and there are those among us who urge the like

abatement of our debt, contracted in the time of the late rebellion of the Confederate States, on the same grounds. They are indifferent to the fact that the price paid for National bonds was the best that could be got for them in the then state of the Nation's credit; and above all, they forget, that the original purchasers did contribute to the support of our armies in the money of the time; and, over and above all other considerations, they do not hesitate to violate the faith of the Republic, pledged for the payment of so many dollars as are named in the bond. The cry of bloated bondholders cannot exonerate National perfidy. King David, who was in position as much above the municipal law as any sovereign state can be, describing those who shall never be moved, but shall abide in the tabernacle of the Lord, and dwell on His holy hill, is particular to include the very strong case of him "who sweareth to his hurt and changeth not" (Psalm xv. 1-5). The fathers mortgaged the inheritance which we hold from them with the incumbrances for the necessary and unavoidable expenses of its improvement and defences. Their last will and testament reads thus:—"After all our just debts are paid, we give and bequeath all the estate of which we may die possessed, real, personal, and mixed, to our children;" and we are bound to take the estate on these conditions, else we allow the testators to be buried as bankrupts at the expense of their creditors.

BANK OF AMSTERDAM.

T. Let us return now to the history of banking at the stages of its advancement in principles and policy which may afford us the required instruction of a careful inquiry. The Bank of Amsterdam, founded in 1609, has in its conduct and fortunes, a curious and instructive revelation of the governing principles of banking, and of currency as well. In the 17th century, Holland was in fact the first naval power of the world, and the largest in maritime commerce. She disputed and divided the supremacy of the ocean with England. In 1667 a Dutch fleet sailed up the Thames and blockaded London. It is true Cromwell was then gone, and one of the most incapable and meanest of the Stuarts was on the throne; but from the close of the 16th, throughout

the 17th century, Holland held the principal seat of commerce in the Indian archipelago; and it was a saying at the time that all the world was clothed in English wool woven in Flanders. This indicates the vastness of its commerce, foreign and domestic, and the consequent employment of the common medium of purchase and sale. The policy of Cromwell between 1653 and 1658, and the equally sound and wise administration of the industrial interests of France by Colbert, nearly at the same time, greatly diminished the economic rule of the Dutch in foreign trade, until the imbecility and misgovernment of Charles II. of England, and the foolish tyranny of Louis XVI. of France, in the latter years of his reign, forfeited the advantages that wiser councils had secured up to the middle of the century, and a few years later.

The intolerable nuisance of the coin currency, as elsewhere, compelled the adoption in the Netherlands of the better currency, and as usual in all progressive movements affecting business communities, the first advancement in the money policy was made for the relief of the wholesale trade, and the Bank of Amsterdam, for long after its establishment must be described as a bank of discount and deposits, but materially modified upon the plan of its predecessors. Gradually some of the main features of a perfected credit system were infused in the framework of the deposit banks of the earlier time, and for a while, they held a middle place between the hard-money and the systematic paper medium scheme of payment—between touch and trust, in the business of exchange.

P. In this stage of development, were not such payments virtually only a mere transfer of the ownership of certain quantities of coins, and so, another method of hard-money payment, without adding anything to the available stock of the currency?

T. Under this system, only so much of a credit system obtained that the convenient transfers of the property in the inactive coin money required the faith of the parties using it, was necessarily given to the actual existence of the redemption funds; but that the idea of its existence answered, as well as the substance represented could do, we have the most conclusive evidence in the subsequent history of this institution.

D. It is easy to understand that speculators in fancy stocks can

buy and sell shares which they know do not exist, on the plan of paying or receiving, at a future day, the difference of the price in their market—wagering that they will go up or down in the broker's auction, just as they might play at hazard in moonshine—but, how can business men be induced to risk their interests upon airy nothings, sported by legally organized public corporations whose debts and promises to pay should be realities, but are not?

T. Facts are not to be disputed because difficult of explanation. They are not theoretical fancies; and, I submit for solution, the established fact that the Bank of Amsterdam, holding the best reputation for solvency, and sustaining it by the strictest punctuality in meeting all claims for nearly two hundred years; effecting exchanges estimated at five thousand millions of dollars per annum, and with great commercial benefit to the city of Amsterdam and its multitude of customers, was, in the year 1790, discovered to have squandered all its capital full fifty years before!—yet, for that half century, had performed the functions of a money agency just as well with the reputation of a capital which had been abstracted as if it had all the while held it in gold and silver in its vaults. What difference in use can there be between an unemployed or hoarded dollar, and a reliance upon a non-existent dollar?

D. You mean, of course, that a security is not brought into actual service until its promised performance is called for. Yet I cannot admit that a fraud, a hollow falsehood, is as good as a fact, a thing truly what it purports to be.

T. Neither do I. The instance cited is only used to show that a shadow can serve instead of a substance, and serve as well in pecuniary dealings, until the disappointed touch dispels the illusion—that a good actor may very effectively personate a veritable hero. Image worship, in acceptable representatives of the unseen, is not unusual in any kind of human doings. Faith is an effective factor in all the uses of credit, and we can all the better understand its uses by looking into its abuses. A picture makes a good report of a face or of a landscape, though it is really neither of them.

That the Amsterdam bank was fatally mismanaged is proved by its catastrophe, for success is the true rule of judgment in matters

of policy and expediency ; but it is, also, clear enough that there was no fraud in its conduct. It lent its entire capital to the States-General, to the East India Company, and to the city government of Amsterdam,—all good customers, and all solvent, but neither of them able to make instant restitution in time to support the *credit* of the institution. (It is not a little remarkable that, with the example of the banks of Venice and Genoa before it, it had not made the principal of these debts transferable.) The bank was in verity solvent, all the time that it was bankrupt in the means of meeting the subsisting demands of its stockholders and creditors. If it only could have substituted, as occasion demanded, the credit of its principal debtors for that of its own exhausted coffers, it would have been safe. The bank really had the money to meet all its engagements, but had it not in its own hands when the emergency came upon it. Like the foolish virgins of the parable, the lamp which it carried had gone out, and the time did not serve for replenishing it, notwithstanding it had in reserve the purchase price to buy the oil that might have kept it burning and shining for another series of centuries.

P. In this story, telling strongly, as it does, of the power of the credit system, there lurks a *per contra* charge of its risks. If the governments which borrowed the bank's capital could not refund it in the hour of need, they were just as impecunious at all other times in the interval.

T. Governments are always out of cash when they are borrowers ; but they are not, therefore, out of credit, which is evidenced by the fact that they are able to borrow. They pledge in security the faith of the nation, which is always, under some conditions, convertible into the means of payment in ordinary business transactions. Their bonds are anticipations of future, but available, resources. They are the strongest examples of the credit system. The common faith in the faith of the nation becomes to the people "the very substance of the things hoped for."

P. Oh, I see. If the bank had held the government debts as transferable, and used them so in its current transactions, all dealers, willing to purchase parts or shares in that fund, would have taken them in liquidation of their claims, or the bank could

have sold them even at a profit, and so have replenished its coffers and restored its loaned capital. But it kept these loans, which abstracted its whole capital, secret.

In the last quarter of the last century the universal political disturbances on the Continent of Europe threw doubts upon the faith and solvency of the governments; and it was, perhaps, not good policy to risk the credit of the bank on the insecure security of thrones and dynasties that were everywhere in peril.

Things have changed. The nations that are stable in their polity now publish their debts without reserve; and, I suppose, that the capitalists who invest their money in the bonds of the United States, intending to replace it by an immediate and profitable sale of the national debt, are not, in intention, mere money lenders, waiting for their reimbursements for twenty, thirty, or forty years, but are only traffickers in the fund.

7. There are some other things in the history of this bank well worthy of notice, but I can now refer only to one of them: The market of Amsterdam was gorged with a coin currency flowing in from all quarters, and of all kinds, which was terribly depreciated, in the average 10 per cent. below its nominal value. All foreign and domestic bills of exchange for sums over 600 florins (probably about \$450) were made payable at the counter of the bank. Deposits of coin with it were scrutinizingly tested, and the value so ascertained, less 5 per cent., was placed to the credit of the depositors. As the premium upon the bank money was equal to this deduction, the owner of the coin was compensated for the deduction. The coins or bullion placed in the bank were not reclaimable in kind, but were locked up in the bank vaults. By law these credits were exempt from seizure or attachment. They were held sacred, in theory, for the money service of the community. The government thus asserted its right and duty to protect the currency which it authorized.

When it was found that the credit paper of the bank was larger than the market demand for it, the bank bought up the surplus at 4 per cent. They had been sold by the bank at a premium of 5 per cent., and this practice of relieving the money market of their excess kept them steadily within 1 per cent. of their par price. A very similar provision in principle has been suggested by the

plan of making our National bonds inter-convertible with greenback notes, by funding the notes at a low rate of interest when they are in excess of the business demand, and restoring them again to the needed circulation; steadiness and adequacy of the circulating money supply being the aim of the arrangement in both cases. This is a flexibility of great importance in addition to the other conveniences of the money medium: a very simple contrivance, and a very practicable one, especially as a check to speculation. But we have not yet reached such perfection in the policy of the money supply. Dr. Rush believed that the spleen, which to physiologists had appeared to be a supernumerary organ in the human constitution, was a basin held by the hand of nature to withdraw the casual excess in the blood supply from the ordinary channel of its circulation in exigencies, and to restore it again when required for the uses of the general system in its normal movements. Such hints in nature are often directory in thought and practice in corresponding situations occurring in the conditions of social agencies.

D. The Bank of Amsterdam, among its other devices dealt in brokerage of its own debts. But the business of dealing in money seems to be a tampering with that thing which ought to be a fixed measure and standard of exchange, as sacred from alteration as bushels, steelyards, and yard-sticks. I don't wonder that Moses, 15 centuries before the Christian era, forbade usury, as he explains the word, lending upon increase (Leviticus xxv. 26).

T. Moses prescribed this law for a theocratic government, for a peculiar people in peculiar circumstances, and marked the exclusiveness of its application by expressly allowing the Israelites to take usury or interest from strangers (Deut. xxiii. 20)—from “the heathen round about;” and the survivors of that race have been always rather distinguished as money-jobbers.

The employment of money in the business of earning money, hiring it for wages, is every way justifiable; and when it thus enters the commodity market, it is as fairly subject to profit and loss as other commodities are; for the effort to find in it an invariable value must be given up. Exchange being simply interchange of values, the subjects are incapable of estimation other than a relation to each other, and not a relation to some third or intermediate thing, as a means of measuring them. Money of account

is the expression of values, and as such is the only true measure in exchanges.

As to the point that troubles you—the brokerage by the bank of its own debts—there is so much of equity in it that it made its money worth 5 per cent premium in its ordinary movement, and redeemed it when it was in excess, at a profit so small as did no more than pay the cost of the transaction; and at the same time rendered the service of protecting their paper from falling below 4 per cent. in the hands of the holders, as it might have done under the free dealings in it by speculators. This brokerage, as you call it, was a sure defence against black Fridays in the Wall Street of Amsterdam.

BANK OF HAMBURG.

T. In the history of the Bank of Hamburg, established in 1619, ten years after that of Amsterdam, we have another instance of the prevailing nuisance of the coins in circulation at the time, and of the compulsory substitution of a representative credit money. This bank had been in the practice of receiving the German rix-dollar at its face value, but the Empire issued a coin of the same name deteriorated 5 per cent. in value. The effect was that the bank was compelled to stop its operations for a time. In 1770 it resumed business on a new unit of value, the *mare banco*; which has never had a coin representative, but as a money of account was worth about 32 cents, or one-tenth of the old English coin called a mare or mark. The silver pieces used in this bank money (47 parts fine to one of alloy) were for a long while at a premium above the coins in general circulation of from 20 to 30 per cent.

D. Twenty to thirty per cent. of fluctuation in the value of real money again in 1770, as in Amsterdam and in Venice, between bank money and coins, four or five hundred years before. Even now among ourselves the legal standard silver dollar is quoted at about 12 per cent. below the par of gold and of convertible bank paper. What are we to do for a standard, by which we may know how much is the exchange value of the money in our pockets?

T. The African coast negroes, having none of the conveniences

of a medium of payment, and who thereby escape the fluctuation of its intrinsic value in contracts, are no better off than we are. One of them cannot be certain, for a day in advance, of the purchasing power over tobacco or muslin that there is in the yams in his bag. The landlord at Pittsburg, who, seventy years ago, granted leases for "the term of the existence of this world," did his best for his heirs by providing that the rent should be paid in Spanish milled dollars of a fixed weight and fineness, or their equivalent in silver, but he could not be sure how much of commodities they would purchase, or how much debt they would pay in the following generations.

P. The history of coined money seems to be full of perplexity. The silver in the Roman penny piece, mentioned in the New Testament, was, fifty years ago, valued at seven pence half-penny English sterling; silver being estimated at 60 pence per ounce troy. It is not worth nearly that amount in their money of account now. Coins, because they have an intrinsic value, are regarded as better for hoarding than bank notes are, but one cannot be certain of their value in exchange when they shall be unearthed. I have been amused when, since the resumption of specie payments, I have received a quarter or a half dollar minted before December, 1861, and evidently hid away for its greater certainty of value, for about 18 years, and find it sneaking back to its duty at a loss in its estimated value of sometimes 12, sometime 20 per cent. The "almighty dollar" has not the theological quality of *the nunc stans*; it is manifestly not safe from "variableness neither shadow of turning;" it is rather that other thing—"all things to all men."

T. Let us not laugh at it, nor at the meretricious qualities conferred upon it by theorists. It is, after all, the very life-blood of the business organism; a little thinner and less nutritious, a little quicker or slower in circulation, at times, but still the great distributor of the supplies required for the maintenance and growth of our material interests. Solomon did not overstate the work of its service when he said "money answereth all things."

P. I derive from the facts presented, and fully supported by our own observations, that, however well coined money may suit the purposes of small transactions in retail trade, it does not

conveniently serve in the larger operations of business, and, not at all in foreign exchange, at its nominal value.

T. The precious metals, in the form of bullion, are proper subjects of foreign commerce, but the coins of the realm, required for domestic use, are out of place in that trade.

The Bank of Hamburg is still a living and useful institution. Its service is that of making the precious metals available in payments to the utmost extent of which they are capable, while avoiding their inconvenience and abuses. There is room and place for such corporation, without the more generally associated issue of circulating notes, in every large business city. Some such have always existed, proving their necessity.

P. These older banks, which we have been considering, may be classed as banks of deposit, and so distinguished from our modern banks of discount, deposit, and issue; for, although for the accommodation of wholesale and foreign trade, they substituted their own notes or certificates, the credit so issued was not adapted to retail dealings and ordinary expenses; that is, they were not graded in small denominations or fixed sums, such as one, five, twenty, and fifty dollars notes. They were not properly circulating notes, but were rather orders, drafts, or transfers of deposits,—immensely useful in their way, but not substitutes or representatives of the small coins or small notes which daily business demands.

T. We have followed the history of the banking system in its formative stages for the purpose of analyzing its principles. To trace its development up to our own time, we must notice the characteristic forms it has taken in the English, Scotch, French, and American modes of its workings.

BANK OF ENGLAND.

T. I am as tired of repeating, as you can be of hearing, the universal wail of the 16th and 17th centuries over the evils of the coin circulation in Europe. Notwithstanding the insular position of England, and her then small foreign trade, and employment as a common carrier of the nations, it was alleged that the debased coin used in purchasing her products for exportation, in the days of Elizabeth, robbed the producers of five-sixths of their value.

This must have been an over-statement. But the loss must have been indeed very great to keep in countenance such an exaggeration. It is probable enough that, at its worst, the metallic medium was as vexatious and injurious as ever a depreciated paper currency has been at any time or place where it was not utterly worthless.

The reasons urged for the establishment of banks, and the plans for their conduct, from the time of the protectorate of Cromwell to the reign of William and Mary, are in a high degree interesting and instructive, too, but I must not undertake a display of them. The treatises published on the principles and policy of the banking system from that time down to the present day would fill a public library. Mr. Colwell had 1800 of them upon the subject of money alone in his collection, and he might have collected 1800 more if he had been curious to show that "of the making of books and pamphlets (on that subject) there is no end."

P. Did Mr. Colwell read all these treatises?

T. I put that question to him once. He answered: "Enough to know that there is almost nothing in them." They are all now in the library of the Pennsylvania University at Philadelphia, where they may be consulted. His own work, entitled *Ways and Means of Payment*, exhausts the subject without exhausting the reader. Mr. Carey's treatment of the topic in that part of his *Social Science* which he entitles, "Of the Instrument of Association," throws a cross-light upon the philosophy of money and banking which will serve to thoroughly complete the study. Together these two authors will repay the closest attention, which leaves very little to be desired in that branch of political economy.

D. You are familiar with the books which you so highly commend. Were these gentlemen, or were they not, biased by their commitments in other departments of economic doctrine in their treatment of this one?

T. Read them with whatever caution such an apprehension may fairly induce. I have not found the evidence of any damaging prepossessions or warping theories in either of them.

But to the matter immediately in hand. I will not detain you from what we shall have to say of the Bank of England by a reference to the discontent of the English people under the evils

of their coinage further than by saying that it pressed Edward VI. (1547-1553) upon an effort to devise a remedy, which, however, he left unexecuted. His successor, Mary, in her brief reign of five years, succeeded no better, and it was left to the heroic Elizabeth to achieve the best that could be done in her time (1558-1603).

During the latter half of the 16th century the current of thought and the plans for relief ran in the direction of establishing agencies for the substitution of credit money as a simple representative of the coinage which was found to be entirely unfit for the business exchanges of the time; but the scheme of deposit banks, so successfully employed on the Continent in the first half of the century, does not seem to have been seriously or hopefully considered. The exchange machinery supplied for the larger transactions of trade, by the London goldsmiths, by its facilities of transfer in the property and service of coin, seemed to suffice for the management of metallic money; and the issue of their negotiable notes, receipts, or other evidences of debt for deposits, had become a familiar currency, answering well within the limits of their capability. The value of this agency remains a theme of admiring report in our common histories. All writers speak of it as a model or typical idea of the money policy, and it is not surprising that its advantages and successes should have captivated its contemporaries. But it worked as a barrier to improvements which were departures from its well-approved system. Communities hardly ever change their favorite customs for untried better ones. It is generally severely felt inconveniences that put practical people upon improvements; and it did not occur to the projectors of Elizabeth's time to merge the depository in, or combine it with, a systematic credit system answering all its intentions.

No public ever was busier than the British during a whole century previous to the opening of the Bank of England with schemes to amend the common money medium which they were all using and complaining of so grievously. Speculative projects ran as wild then as they do now without the grounds of a like complaint. The press groaned under treatises giving all sorts of reasons for all sorts of schemes; some of them resting on commodity pledges, some upon landed securities, and some few upon no security at

all. An index, or table of their contents, would do good by showing inventors that there is nothing new on that subject under the moon.

P. Your friend, Mr. Carey, is reported as saying: "Meet any man on the street and ask him to make a hat, or a coat, or a pair of boots for you. Every one of a thousand strollers would answer, 'Sir, I never learned either of those trades.' But if you ask for a banking system or state constitution, nine in ten of them will accommodate you with a theory as infallible as a panacea, a catholicon, or an anti-bilious pill. Even in conventions of world-menders one of every ten is equally competent and ready. They are just as able to distil tallow out of rain-water as anybody that ever went into the speculation."

T. Yes, in the judgment of *inspired* economists, the experts of study and experience are the incapables. They scorn the idea of working and waiting for the millennium that is to come in the fullness of time; they prefer lugging it into realization by the head and shoulders. They answer insuperable objections and doubts of their competency by declaring that they have a right to think for themselves, overlooking the fact that they are assuming the right to think and act for other people, who probably prefer to have their thinking upon unfamiliar subjects done by people skilled in the business.

D. St. James expressed the opinion that it is the professional priests and prophets that bring "damnable heresies" into the cause of religion; and it is certain that the very biggest blunders have been made in other matters by men holding the position of counsellors and guides. So that in the average the common sense of common men has the advantage over professionals and doctrinaires.

T. The multitude has this advantage of projectors, that they have the trying and testing of the projects which concern them. Their judgments are formed upon experience, which if it does not test the truth, certainly does test the expediency of the thing proposed. They do not take responsibility for opinions about the unknown and untried. The pioneers of thought and action put their predictions upon record. The common sense judgment gets the opportunity of the after-thought. The men of forethought are often exposed to the vulture of criticism. Genius blunders oftener by

putting trust in those who must incarnate its conceptions, than by the mistakes for which it is rightfully answerable.

But the Bank of England is waiting upon us for a hearing, as it waited a century or so on the wrangles of theory previous to its inauguration. Disputation, however unavoidable, hinders business.

The Bank of England crept into existence not as a formal corporation chartered by that name, but under the guise of "an Act of Parliament granting their Majesties—William and Mary—several duties upon tonnage of ships, and upon beer, ale, etc., for securing certain recompenses to such as should subscribe £1,200,000 to a fund at 8 per cent." The subscribers thus became in effect a bank. They paid or loaned their whole capital to the Government at 8 per cent.; and the money, instead of being stored in its vaults, was scattered throughout the kingdom. The cash took the form of a National debt, and became a credit fund.

D. Then the capital was but the shadow of the cash which it represented, daguerrotyped upon the books of the bank. "What shadows we are and what shadows we pursue."

T. The shadows that are "types of good things to come" cannot disappoint the hope worse than the touch of a Midas that turns everything to gold. Still it is true that expectation often embraces a cloud where it grasped for a goddess. Yet, the credit of the bank did not then fail when its entire capital was vested in the National debt, and it is not now injuriously affected because fourteen-fifteenths of its present capital is in the National securities. Just now about 15 millions of pounds sterling in Government stock and securities, with about 25 millions in gold and silver is found, after long experience, to be an adequate basis for 55 millions of liabilities. And none of the mischiefs which it inflicts upon the public are the fault of its securities; but, paradoxical as it may seem, the worst of its operations are in the measures which it adopts to *insure* its solvency.

As a pertinent fact in the history of modern banking it is to be noted that it was the first joint-stock bank erected in England, and that so lately as the year 1694, and that it continued to be the only one in London until the year 1834. At that date it was followed by the London and Westminster, which proceeded success-

fully and was quickly followed by the London Joint Stock, and the Union Bank of London.

P. How do the resources of the bank usually stand to its liabilities?

T. The proprietors' capital in May, 1877, when the condition was regarded as fairly good, was £14,553,000; rest, £3,063,480; private deposits, £22,480,099; circulation, £29,077,985; coin and bullion, £25,004,621. Adding to the circulating its post notes, £337,059, its total liabilities amounted to £58,210,693. Subtracting its coin and bullion leaves its liabilities at £33,206,072, and to cover this liability over its specie on hand its securities amounted to £36,269,552; this over-balance of available resources was its rest of £3,063,480. The bank, therefore, was able to pay on demand, without converting any of its available resources outstanding, 43 per cent. of its liabilities in specie. A less percentage than this is regarded as an ample provision of redemption fund for banks in good credit in the ordinary condition of the money market. I believe that 25 per cent is deemed quite sufficient. In a panic, of course, the soundest bank as well as a perfectly solvent merchant, whose funds are largely in the hands of its customers, may be pressed to a suspension of payment.

P. A statement which I find among the notes which you have submitted for our consideration, exposes extremely variable rates of interest or discount charged upon its loans and advances upon immature bills and accommodation paper, ranging all the way from 2 to 10 per cent.—rates sometimes lower than the lowest usual hire of money in England, and sometimes higher than the highest possible yield of profit to the borrower. What does this mean?

T. Such wide and wild changes of the bank rates sometimes mean a scare, sometimes an honest necessity, and sometimes, I believe, are a trick of the money trade. When the rate is low, it is because the funds would otherwise lie idle and profitless; when the demand is light, the interest charged falls; when it is great and urgent, the rate rises, as in the dealings in other commodities. Food is a drug in the market when it is over-abundant. In times of scarcity it goes up to starvation prices. In business, carried on by the largest and soundest dealers, it is done largely upon

credit; the credit of the dealers employing and discounting the credit of their customers. Banks are the usual intermediates by which they anticipate payment of their bills receivable.

But it is not only in expectation of profitable investments that money is sought for. When debts mature, money must be had to avoid bankruptcy, and in pressing exigencies it will command rates of interest that correspond to the scarcity and starvation prices of the food-market. The pinch of the necessity may arise from either a magnitude of the demand or a deficiency of the supply, and a money institution of high credit, has then command of the situation. The Bank of England has, beside this natural advantage, a background support in its charter which requires it, in a fixed relation of its resources to its liabilities to either shut down upon its customers, or to check their demands for its accommodations by raising its rates of interest to a height that drives all but the desperately necessitous from its auction sales of credit. How this policy, partly real, partly imaginary, and partly speculative, is capable of working, I need not stop to explain or expose. Think of a corner in wheat or coal, or in any other necessary of life, and you have a sample of a money stringency, actually existing or artificially and artfully produced or exaggerated. In such a scarcity of supply to meet an urgent demand, you have an analogue of tight money markets. Think of credit as the food of the great commodity exchange, as it is now conducted, and you have its fluctuations explained by a sort of object teaching. You may see it sufficiently well by its running correspondence to appetite, hunger, and the conditions of the diet which they require for growth and gratification.

P. What a picture! The butcher at his stall in the shambles, sometimes begging custom, lest his stock shall spoil on his hands; sometimes, when you are hungrily importunate for the nourishment on which your life depends, making your necessity the measure of his exactions. How like the banker, offering, proffering *his* wares, on your own terms, when your wants are not pressing at 2 per cent., and holding them at five times that price when your needs are the sorest!

D. How I am relieved of a long strain upon my feelings and opinions by your finding a hole in the cloak, that by the ampli-

tude of its theoretic doublings and infoldings cannot quite cover the disasters that mark its wear and tear in actual use. It may be allowed that the credit system does "raise the wind," but it must also be admitted that it is fairly responsible for the financial storms which it brews. Is it because it rises into gusts sometimes that your Pennsylvania Dutchmen call payments of debts in instalments by the figurative name of gales?

T. The capability of great service in the inventions of men are just the things that are liable, under mismanagement, to the greatest abuses. You have, doubtless, occasionally suffered severely from the law of gravitation, which usually holds you steady on the earth, when you have made a misstep in your adjustment to its power.

P. Your explanations already made, may cover and include the difficulties that there are in understanding the procedure and the policy of banking, but one unfamiliar with the subject requires to have the thing turned inside out and exhibited on all sides, to assure him that he has the theory. Allow me, for this reason, to ask for the indications in bank reports that the fluctuating rates of interest are required or justified.

T. There is a pretty close connection between the amount of the reserve held by the Bank of England and the rate of interest charged. For instance, when its reserve of notes and coin was, in May, 1876, thirteen millions of pounds, the discount was at 2 per cent.; in May, 1877, the reserve was eleven millions, nearly, and the discount rose to 3 per cent.; in May, 1867, the reserve being the same, the discount was also at 3 per cent.; in May, 1874, the reserve being down to nine and six-tenth millions, the discount was 4 per cent. In 1875 the rate of discount did not rise in proportion to the fall of the reserve, which was then one and a fifth millions below that in 1874; the discount was then lower— $3\frac{1}{2}$ per cent. The *London Economist* gives as a reason that the value of money tended to fall at that time was in the absence of demand for gold from Germany, and for the further reason, that trade was generally quiet. The rate was lowered because there was no probability of a run upon the specie in the bank's vaults.

P. You speak of the "Reserve" as consisting of coin and notes. What notes are these?

T. They are notes held unused by the "Banking" department of the bank. To understand these notes as a reserve coupled with coin in statement, and having a like effect upon the resources of the bank as set-off against its liabilities, you must understand that the institution is a couple of distinct but united offices. The charter of 1844 limits the amount of bank notes issuable by the "Issue" department to the "Banking" department to the aggregate value of the gold and silver in possession added to the government debt to the bank. At the date mentioned these securities amounted to £39,228,650 (the gold and silver in the issue department being £24,228,650, and the government securities £15,000,000). To the exact amount of these securities, the banking department receives from the issue department circulating notes for its business transactions with the public. That portion of these notes which the banking department does not put out constitutes its "reserve" in notes.

The reserve, mentioned in the periodical reports of the banking department, is not the gold and silver account of the issue department—that, with the national securities, stands back as bail or security for the liabilities of the banking department, as our national bonds, deposited in the Treasury, are simply securities for the notes issued from it for circulation by the banks. The reports of the *banking* department mean by its reserve the small quantity of gold and silver required for its customary business, and the unused notes on hand. This reserve, in the case mentioned, consisted of notes £10,150,665, and of gold and silver £775,971 (observe that these notes are a real reserve, because they represent their equivalent of specie in the issue department, which, if need be, can be drawn by returning the notes to it).

The sum of the assets in precious metal is that deposited in the issue department, £24,228,650, and £775,971 in the banking department; so that the bank had £25,004,621 in coin against £29,415,044 in notes outstanding, but while the bank thus held $4\frac{1}{2}$ millions less of coin than it had outstanding in notes, it had its 15 millions of government debt, convertible through the money market into coin; leaving it $10\frac{1}{2}$ millions of surplus on that account. But it had at the same time 29 millions of deposits which it was liable to pay on demand. For the difference it must rely

upon its outstanding loans, which, if available, would more than meet the liability: the credit of its debtors being the security for its debts over and above its means in hand.

D. There is a good deal of complexity in the machinery of the bank. I cannot trust my arithmetic to ascertain its solvency in any state of its condition, or from such data, imagine its risks. And I should like to know whether it has ever been in danger of failure.

T. That it has been more than once in danger of a suspension of specie payments within the last 36 years, under its present charter, and that it did so suspend in effect, is palpable.

D. What is the evidence of this charge?

T. Sir Robert Peel, by the bank charter of 1844, which he passed by his influence through Parliament, limited, as before stated, the note circulation of the banking office to the amount of the gold and silver in the issue department, added to the national securities, also held there. These securities stand at the back, but behind the back of the banking office, and are available for its debts only after it has failed to meet and discharge them. Beside its debt upon its outstanding notes, it has an immense debt to its depositors. Its specie is less than a million, its liabilities on demand are equal, all told, to nearly 60 millions. Is there not a possibility of a pinch in this condition of things? The facts of its history answer. The managers in 1844, cried out in their apprehension of an immediate suspension, to her Majesty's Privy Council, for permission to violate the restriction in its charter. That is, for the privilege of issuing notes beyond the value of the securities in the issue department. In 1847 the bank appealed for the like relief, and obtained it. In both these instances it must suspend its operations or go beyond its ability to redeem its promises to pay on demand. Again, in 1866 (the third time in 22 years), to relieve it and its customers from distress, the Privy Council extended the same privilege or authority to evade the condition imposed by its charter; but the mere possibility of the release answered the purpose, and it tided over the shallows without actually availing itself of the proffered tug-boat assistance.

A strongly illustrative instance is, in effect, thus given by one of the safest authorities upon English finance:—

“A drain of gold set in, in 1857, for money was as much needed in France and Germany as in England and America. The necessity for sending large sums of silver to the East, to meet the demands occasioned by the Persian and Chinese wars, added to the mischief. The bank raised its rate of discount in six weeks from 6 to 10 per cent. ; but even so, it was unable to maintain its reserve. By the 11th of November the stock of coin and bullion had fallen to £6,675,000, and the reserve of notes to £957,710. The demands to which the bank was liable were £12,935,000 upon its private deposits, and on the other hand, the bills under discount and other private securities amounted to £26,115,000. Under these circumstances the government took the same step as had been taken ten years before. They recommended the bank directors to take upon themselves the responsibility of issuing notes upon securities beyond the limit prescribed by the bank charter act ; and they undertook to call Parliament together, and propose a bill of indemnity for this breach of the law. The bank did, accordingly, avail itself of the authority of the Privy Council to the extent of £2,000,000. And so it escaped a suspension of its business by a virtual suspension of specie payments under the restriction of the charter.”

These, however, were exigencies in which the danger was imminent and impossible of postponement. The *threatening* of such a catastrophe is not unusual. When it puts up its rate of discount or interest anywhere, let me say above 4 or 5 per cent., it is done under forecast of a falling sky. In such seasons of a strain upon its immediately available resources it is driven to defend itself against the necessity of calling in its loans, and granting extensions or new accommodations to the business community by oppressive rates. I need to cite only these instances :—In 1848 its discount rate was at 8 per cent. ; in 1854 at 5½ ; in 1856, 6 and 7 per cent. ; in 1857, 7 to 10 per cent. ; in 1858, 6, 7, 8, 9 and 10 per cent. ; in 1866, drifting into suspension, 6, 7, 8, 9, and 10 per cent. In 1857 it changed the rate eight times ; and in 1858 after it got relief, it changed eleven times before it got down from 10 to 3 per cent. ; in 1861 it fluttered through fourteen changes from 5 to 4 and thence to 8 per cent. ; in 1834–5–6, 3 years, it gambolled or

gambled from 3 to 10 per cent. through the intermediate forty-six stages of ups and downs, averaging fifteen changes a year.

What think you of reeling through such a dance of death as this, and of its disastrous influence upon a dependency of the money interest equal to 100 millions of our dollars, with all its incidents of losses, suspensions, and insolvencies among the business men of the great metropolis of the world's trade?

P. If such disturbances in the money market, depending upon the conduct of the bank, are made necessary by the restriction imposed upon it by its charter, the fault lies there.

T. For these mischiefs the bank is responsible to the extent of its influence in producing them; for they are not all due to, or chargeable upon, the pinching restriction of its charter.

The bank is a corporation of stockholders, and their interests greatly modify its conduct. As they profit largely by the tightness of the money market, it is allowable to infer that they not only welcome high rates of accommodation, but have a share in provoking and continuing them beyond the necessity imposed by their charter obligations.

D. If the bank raises its rates as a defense of its resources, does it not diminish its profits by diminishing its business?

T. It must reduce its loans and discounts to one-fourth of the ordinary amount before it can lose anything at 10 per cent. from its profits at $2\frac{1}{2}$ per cent., which, by the way, is about or quite the average increase of investments and general yield of money in England, and is, therefore, the normal rate of interest. In fact, I find that when its charge was $2\frac{1}{2}$ per cent., it paid its stockholders $7\frac{1}{2}$ per cent. dividend upon the par price of its stock. When it paid them 9 per cent., its charge was $3\frac{1}{2}$ per cent. In 1866 when the business revulsion was the sorest, it charged in the 16 changes of rates of that year, all the way up from $4\frac{1}{2}$ to 10 per cent. discount, and divided a profit to its stockholders of 11 per cent. So you see the bank gains by the public suffering, as doctors do in epidemics, who are not likely to pray for the general health, but more likely to prey upon its disorders. It is not all a cautionary decrease in the accommodation of the public imposed by its condition, for in 1860 when it was lending and discounting at $3\frac{1}{2}$ per cent. its loans and discounts were $30\frac{1}{4}$ millions of pounds; but in

1866 when it was charging 6, 7, 8, 9, and 10, it tightened the screw 6 millions in one of the quarters of that year, and 7 millions in another quarter of the same year, and raised its rates from 6 and 7 to 9 and 10 per cent.

D. If such unsteadiness of a thing which ought to have the steadiness of a standard, but, instead, keeps prices and prospects damaging in stimulation and depression alike, are traceable to bank manipulations, has not the evil induced endeavors at a remedy?

T. It has provoked complaint enough, but the remedy has not been found. John Bull is an obstinate creature, and like Issachar—"is a strong ass, he bows his shoulders to bear, and becomes a servant unto tribute" (Genesis xlix. 14). When he once gets it into his head that an institution is of the true-born English sort, he will bear it with wondrous endurance and with a patience that is almost amiable, rather than resort to a "blasted" novelty. He believes now that Peel's contrivance for making the Bank of England-note convertible on demand into hard cash, even at the risk of every other service which it ought to render, is the very perfection of financial skill.—The result of the largest experience of the ages gone by, and the wisest policy of her savans of finance, and notwithstanding that the restriction-trap in the bank's charter has to be let up every time for which it was provided to act, and set again for just as long as it is useless, it stands there upon its accommodation springs, as the regulator and insurer of a sound convertible currency—when nobody wants the currency converted—a safety valve that must not play when its designed use is required.

P. Is the restriction clause of the charter so ridiculous as that? Is the science of currency in no better condition than that in the metropolis of the world's commerce; and is it so absolutely absurd?

T. It would be ridiculous if it were not more mischievous than preposterous.

D. There must be some indications by persons of authority suffering these errors in the bank's constitution, that support your sweeping condemnation.

T. A royal commission was moved in Parliament, in 1866, "to investigate the causes which lead to the long continuance of a minimum rate of discount of 10 per cent., in which the large profits of the Bank of England were alluded to as supplying one

“reason why an inquiry should be made.” A member of the House of Commons and a director of the bank conceded the charge against the bank, with all its necessary implications contained in the resolution, by begging the House to remember that, “while borrowers suffered, the lenders gained; and that, as both are citizens of this country, the gain, as well as the loss, would be felt throughout the empire.” Is not that a tid-bit of logic worthy of a broker, who could on the same ground justify a speculation in the weakness and folly of a profligate heir expectant who sells his post-obits at 50 or 60 per cent. discount?

D. What came of the investigation?

T. I do not know, and nobody need care. The charge in all its force was conceded by an official of the bank, just because it needed no other proof or explanation than the published reports of the bank. The *Money Market Review* went into a statistical confirmation, which I have used as to the particulars of the affair. The text-books and encyclopedias of British authors are chary of its abuses in their notices of the great regulator of their currency; but they admit what, indeed, cannot be denied or explained away, that the bank has been frequently on the verge of suspension, but they do not generally or frankly expose the fact that it as often saves itself in its embarrassments by crushing its dependencies. Sir Robert Peel and his advisers intended to restrain the master bank of the kingdom, and, through it, all the other banks, from making over-issues of circulating notes, and insuring their instant convertibility, but his restriction trap never did prevent inflation; and, when the crisis came upon the great regulator, it only threw the penalty and the damage upon the public. We have seen that the corporation makes itself not only exempt from the revulsions which it helps to produce, but profits largely by its interference to relieve the mischief when it comes, or only threatens to come.

D. If such evils are inherent and unavoidable in the banking system, is there no help for it; no more promising corrective than the experience and the wisdom of the money metropolis of the world has devised and adopted?

T. We shall probably see, as we proceed with our studies. And, let me here remark, that the phrase, “money metropolis of the world,” meaning a power held, and a reputation acquired by

its centralization and domination, calls for a revolution throughout the domain of finance. A declaration of independence is wanted to throw off the yoke of its despotism, and a setting up of local governments to escape colonial enslavement.

P. I see, by the reports, that there are in the United Kingdom other institutions, with an aggregate of capital and deposits more than equal, and a circulation nearly equal, to those of the Bank of England. Do they not materially modify, or, to any extent, check or counteract its irregular workings?

AMERICAN BANK EXPERIENCES.

T. Scotland has a greatly better, as well as a widely different, system. That of France advantageously compares or contrasts with that of England and Wales. And our present national bank policy affords a critical and instructive analysis of its policy. But we must defer these inciting investigations until they fall more appropriately into the plan of these inquiries.

P. It seems to me that the varied banking experience of our own country, modified and guided by that of the Old World, must open up the whole subject to the light. We have discussed everything, and tried everything that belongs to the subject; and, not being old enough, conservative enough, or even orthodox enough, to be bigoted in our views of anything in doctrine or in practice, we should by this time be able to bring the machine, its springs, and issues into view; or, in failure of a complete and profitable exploration, we must have exposed our incompetency, which suits these conversations just as well. Let us try this self-examination, and, if possible, avoid the self-glorification that too often attends the business of heart-searching.

T. There is much in our own history that will be pertinent in our present train of thought. Let us see some of these points.

Ever before the late Southern rebellion, under some differences of forms and modifications in detail, we were guided in our bank theories by the doctrines and practices of the countries which we were accustomed to call our mother or our fatherland. Affiliation in this, as in other things, clung to our robustuous political severance from our kindred over the water. We tried in many ways

to provide a currency, a credit currency, in the form of circulating notes, and tried as earnestly to secure their redeemability. We tried, once or twice, to give the currency a uniform value by measures promising to be effectual, but generally less, even less, successfully, than were our foreign exemplars, although the bank troubles of England, in some exigencies, might keep our own in countenance, for there were about an even proportion of fraud and folly in both cases.

P. Is it possible that the city and country banks of England and Wales ever went into such confusion as ours have done?

T. A bald statement of the facts of nearly corresponding dates will show. Mr. Gallatin, Secretary of the Treasury, reported to Congress that, between 1st January, 1811, and 1st January, 1830, 165 of our banks failed. British history caps this report with 240 failures between 1814 and 1816; and, from 1824 to 1830, 118,—an aggregate in sixteen years of 358 against our 165. In 1841 fifty-five American banks broke; between 1839 and 1848 eighty-two British banks succumbed, of which forty-six paid nothing to their creditors, and the average dividend of the remaining thirty-six was less than 35 per cent. It would be curious to know the relative amounts of losses following these failures, but it is apparent that the respective results under a generally similar system exhibit the common vice of both.

Twenty or thirty of our local legislatures, without any bond of union or concert of aims, gave us our wild-cat, red-dog, and other irresponsible paper-money factories. England's one Parliament allowed the catastrophes that followed its administration of the great trust. The fault of each looks monstrous till its fellow's fault is brought to match it.

D. Fair play, in this comparison of systems, requires you to note the fact that our great national, the United States Bank, which was claimed to be the regulator of the American banking system and its safeguard, suspended, resumed, and finally broke irretrievably between 1837 and 1841. The Bank of England never went so far as that.

T. Stop a little. In 1796, when the debts of the Bank of England stood at £15,903,110, and its stock of coin and bullion very little exceeded one million, an order of Council was issued author-

izing its suspension, and *forbidding* it to pay its debts; that is, to pay coin on its outstanding obligations, on the public ground that such coin would be exported to foreign countries, but really because it had not the cash on hand to meet its engagements. This failure, or postponement of payment, would have been bankruptcy in an individual, but it was not insolvency, only suspension in bank dialect, which suspension lasted twenty-five years—till 1821. In 1837 its condition, with all the support of the national exchequer, which was then largely in its debt, was so unmanageable that the judges of its chances admit that it was saved from actual bankruptcy, not insolvency, by the aid extended to it by the Bank of France. And what can be said for its banking solvency in 1847, 1857, and 1866, when the Privy's Council's intervention saved it from going into liquidation?

But, when the "Bank of the United States" fell into trouble, in 1837, its charter by Congress was taken from it; the public deposits were removed; the President (Jackson) had declared it insolvent and corruptly administered. It had nothing then but its cash and a badly damaged reputation to sustain it. It suspended, or postponed payment, but finally redeemed all of its circulation, paid all its depositors, leaving only its stockholders to suffer, and had a trivial surplus of about two dollars per share to divide to them. I think, all things considered, the Bank of England does not contrast so strongly as you present it. Might not our Regulator have survived under the fostering care of the Government, such as the Bank of England enjoyed, if it had been so helped by every contrivance that the Ministry could invent? Among other things its paper made a legal tender; its suspension legalized, with a provision that the bank could not be sued for non-payment of its notes; and that no person could be held to special bail in any action against which he had tendered in payment Bank of England notes.

Under favor of such immunities as these the Bank of England was able to make dividends of 7 per cent. from 1793 to 1806, and 10 per cent. per annum from that date till 1816. Its total dividends in these twenty-four years brought to the stockholders of this suspended bank the handsome sum of £23,051,952, and

bonuses beside of £6,694,380,—equal together to \$152,269,711, or 250 per cent. on the par of their capital!

D. In view of such results, how happens it that they never brought irretrievable ruin upon the business world? You will allow me to judge the facts of history by their issue.

T. There is a vital force in the springs of the business organism that survives the disasters of its mismanagement. You have seen healthy and able-bodied people, who had passed through the convulsions of teething, the eruption of measles, the struggles of whooping-cough, who had been roasting themselves over the kitchen fire in June, and soothing themselves with ice-water in January, and all the while subjected to the curative quackery of drug remedies, yet had survived all these disturbances of a broken balance in their vital functions, and, despite of them, had grown into strength and average stature. Would you question the reality of their diseases because their bodies had not broken or gone into liquidation? Rather you would conclude that human nature is tough.

P. I confess that all along the revelation of the evils of the banking system, so long in vogue, I have hesitated to accept a systematic pathology of the patient's disease, which looked so like a coroner's inquest upon the dead body of its subject, with a verdict of suicide committed in a chronic attack of mental alienation. But it seems that the common life of communities will, however broken, brokenly live on; and that the Promethean fire will burn on though the vulture revenges of transgression are ever tearing at the vitals of the body corporate.

T. At their best, the country State banks of our system were under par in their own metropolitan cities, and our city banks were at a discount in their neighboring cities, which altogether amounted to a heavier tax upon the people than even their frequent bankruptcies. A few miles from home their notes were aliens, and were discounted in trade in proportion to their distance. They were under no common control, and carried no vouchers of their solvency with them. Their notorious uncertainty of redemption had the effect of generating a hard-money theory of currency that was always lying in wait to destroy them. Their reported value ran up and down at the will of speculators,

half a dozen times a day in the auction shops, well named money *markets*. Their instability of exchange value put up prices at the expense of creditors and consumers, and then again, put them down to the damage of producers and debtors. The total wrecks of fortune which they in great part occasioned, were estimated by Mr. Gallatin at 75 out of every 100 merchants in the country. The dealers in disaster sometimes piled up fortunes, which is a bad distribution of losses and profits; unless we take for sound the consolatory doctrine of the British bank director, already quoted, that it was as we say, "all in the family," or as he said, the losers and gainers are all citizens of a common country, and find compensation in that sort of communal interest where the devil takes the hindmost in the race for riches.

OUR NATIONAL BANKING SYSTEM.

P. As we cannot get out of the credit currency system without going back to the barter of the barbarous ages—which is quite impossible—there must be in possibility some available remedy, for whatever is necessary, in the philosophical meaning of the word.

T. So far as a sound note currency is a necessary part of the credit system of exchange, Mr. Secretary Chase put the essentials into this form:—

1st. A circulation of notes bearing a common impression and authenticated by a common authority.

2d. The redemption of the notes by the association to which they may be delivered for issue.

3d. The security of their redemption by the pledge of government stocks, and an adequate possession of specie.

Or, as he says, "In other words, a plan for the preparation and delivery to institutions and associations of notes prepared for circulation under national direction, and secured as to prompt convertibility into coin, by the pledge of national bonds, and by other needful regulations."

The existing national banks are organized and acting in exact conformity with these requirements.

D. It strikes me that resting the security of the circulating

notes of the national banks upon national stocks, is very like the pledge of the national debt held by the issue department of the Bank of England for the ultimate redemption of the notes put into circulation by the banking department—the Treasury acting as the issue department, and the aggregate of the national banks acting as the banking department of the Bank of England does.

T. The American system rests the total of the security for the authorized notes in national bonds and redeems them at the Treasury upon failure by the banks that circulate them. Another difference, the act of Congress puts no limit, fixed and inflexible, upon the amount issuable. Its provisions in this respect are not such a Procrustean bed as that upon which the British system stretches and mutilates the victims bound upon it. On the contrary, the pledge of security is exactly coëxtensive with the liability in whatever changes it may undergo. Never more, never less than fully adequate. The constituting act provides that whenever more currency is demanded for service it may be afforded; whenever in excess in the locality of any bank, it may return unused notes and withdraw the bonds pledged for their redemption. And whenever a bank suspends payment of its notes, the redemption is shifted from its counter to that of the Treasury, and an equivalent amount of its deposited bonds are cancelled. Thus not a fraction of discount is suffered by the holder, because the notes then become a promise to pay by the Treasury, and the insolvency of the bank is of no practical import.

P. The effect upon the currency so authorized and secured by the provisions of the act is:—

T. The establishment of one form of a sound uniform circulation throughout the country, resting upon the National credit combined with private capital, subject to no discount whatever, and no dependency upon the solvency of the issuing bank; effecting a transition from a currency under the old or European system, which was heterogeneous, unequal, and unsafe, to one uniform, equal, and safe; and providing an effectual safeguard, if an effectual safeguard is possible against depreciation, and affording complete protection against losses and cost of exchanges.

D. So far so good. What does the plan do for the protection of depositors? an interest quite equal to that of the note-holders.

The British bank plan of its great institution has an equal care for deposits and circulation.

T. There lurks the mischief of that policy. Our banking law is not at all indifferent to the interests of the depositors and contract creditors, other than the note-holders; but the bargains of depositors are with the corporations, not with the Government; and, accordingly, while the Treasury gives due supervision to the extent of its responsibility for the advantage of all creditors, it does not make itself a surety in the contracts to which it is in no respect a party. And, warned by experience, it takes care that depositors shall do no mischief to the note-holders. The Government has nothing to do with the money trade of the corporations, but so far as it gives them public credit or invites public confidence, it watches over the conduct of the banks. Observe that a National bank is not an office of the United States Treasury. A charter of the Government does not make it a partner with the stockholders. It is the currency issued to the company and employed by it for which the Government is responsible; just as it has nothing to do with the business of a merchant who employs the coin issued from the mint.

To exercise this, its sole duty in the matter of the circulating notes required in the common business of the community, and to recover its proper control over the currency, Congress, in 1864, drove all the notes of the State banks and all other forms of paper circulation out of use by imposing a tax upon them which they could not support and live. The grand result is, that since that date we have a safe, uniform medium, subject to no disturbance or inconvenience, except those which may fall upon the Government credit. If the National Treasury suspends specie payment the banks must; when the Treasury resumes the banks do likewise; or the Treasury, as the security for their notes, does it in their stead. Thus, for the first time in our history, Congress assumed and exercised the power given to it to regulate the money of the country and to fix the value thereof in all its kinds.

P. You believe that the experience of a 16 years' trial has fulfilled all that the National banking system promised.

T. All, and so far as at present advised, all that any banking system can accomplish.

D. But the Government charters these banks, and thus gives the public at least a constructive guaranty of their trustworthiness. Is it exactly fair to do nothing for creditors other than the note-holders?

T. It seems almost impossible for theories, however faulty in practice, to get rid of all traces of error. Something of this is found in the provision of the bank act which holds the stockholders liable to an amount equal and additional to the amount which they subscribed and intended to invest in the capital. The act takes this much care of the interests of the depositors and other general creditors, and by the right and duty of supervision by the Comptroller, guards as well as it possibly can, without otherwise guaranteeing their general business trusts. The Comptroller, by his appointees visits and inspects the affairs of the banks, at his pleasure, and checks their irregularities. For any grave or dangerous violation of their obligations he appoints receivers, winds up their business, and distributes their assets among the claimants. In all respects the Comptroller intervenes in behoof of all the bank's customers as far and as beneficially as can be required.

D. The doubling of the liability of the shareholders upon the amount of their investments in the capital stock as provided for in the act, does not meet your approbation. Why not an unlimited liability of those who through their own officers and agents control the bank's business? It is a sound maxim of law that what one does by another he does by himself.

T. In the case of bank corporators there is a countervailing equity to be considered and allowed. Large numbers of them are really incapable of controlling the business of the association. Heirs and devisees are generally in this predicament; indeed, a majority of the constituents are not morally liable for the abuses of a majority of the directors. Besides, the equity of the creditor is clearly limited by the amount of the investment of the shareholder, and the stockholder ought not to be required to risk more than he has staked. But without this, the impolicy of an unlimited liability is fatal to it: it deters honest and prudent people from running such risks, and leaves the business to such as will venture anything in a lottery of chances, intending to make the most of it. The recent explosion of the Bank of Glasgow,

(Scotland), which failed through the fraudulent mismanagement of its officers, is an apt illustration: A widow lady was saved from the loss of all her property by the roguery of her agent, who, instead of purchasing for her some of its shares, ran away with the purchase-money entrusted to him, and so she escaped a ruinous liability for all the defalcations of the bank.

I am not describing the stockholders of the national banks, nor of any others. They are as honest as other people, and are better watched. Their risks are mitigated by the ascertained amount, and the smallness of the penalty imposed upon their misfortunes. I am trying the principle in issue. Out of such considerations as these, the comparatively recent introduction of the truer principle of "limited liability" into the joint stock corporations of Europe and America has been largely adopted. Everybody dealing with them has notice, and the bargain he makes and the trust he reposes, is a matter of contract, governing both parties concerned, and is equally just to both.

P. The "liabilities" in bank reports embrace both the circulation and the deposits. In what do these two classes of debts differ from each other?

T. They are alike debts payable by the banks on demand, and in that circumstance lies the danger of the proportioned amounts. For example: the outstanding circulation of the national banks in January, 1880, was over 322 millions, at the same time the deposits amounted to 766 $\frac{1}{4}$ millions; something more than 2 $\frac{1}{4}$ times greater. Of course these proportions do not hold uniformly. Under the old State banking system the deposits were sometimes considerably greater, but always nearly the half of their liabilities. Their magnitude is a more or less important element in their possibilities of mischief to the note holders.

P. Do not the "deposits" in bank statements represent the money of customers actually left with them, and thus become resources as well as liabilities—liabilities because they are to be repaid to the depositors, and at the same time resources for that use.

T. They are debts, and for the most part are nothing but debts of the borrowers converted into credits. The resources to that extent provided to meet them *on demand* must be looked for alone

in what is called the reserves. This point will appear by reference to the condition of the banks in the city of New York on 1st October, 1878. Their deposits are given at 213 millions. What would this sum in money be doing in the bank, and how would it get there? The loans and discounts were then 196 millions. Obviously, the loans and discounts embraced the greater part of these "deposits." These loans run, probably, thirty, sixty, and ninety days, and were not *certainly* available to meet the deposits on demand. Is it not plain that a panic may become a pressure by a run of the depositors? The very people whose claims upon the banks are only their own debts in the form of credits on the books of the bank, could cause their suspension of prompt payment.

D. When the sky falls we may catch larks!

T. The financial sky often lowers and sometimes does fall. I am speaking of the possibilities—the lurking dangers in the bank deposits. A squally money market puts the banks upon the necessity of providing for possible and threatening demands by curtailing their accommodations and calling in the maturing loans to their customers. They loaned their credit in the confidence that it would be available quite as fully as their liabilities would be likely to require; but, when a pressure is actual or only imminent, they are nonplussed. The "depositors," who are for the most part borrowers, are also disappointed in their expectations; they must withdraw their deposits. The banks, in turn, must press their debtors for payment, refuse extensions of their loans and accommodations to the fresh applicants for relief, and when the panic runs into an actual pressure, they must suspend, however solvent they may be. In point of fact, the circulating notes of the banks are never at the bottom of the alarms which disturb them. The note holders know little or nothing of the condition of things. Those who are in the position to know it best, never have more of these notes than answer for pocket money—they make and receive payment by checks. The depositors are in intimate business relations with the banks, and are always in the front rank when a run is made. The rear-guard it is that makes the rout but do not institute the assault.

It helps to understand the force of a panic, that while some institutions cut up badly, paying all the way from 50 cents on the

dollar down to nearly nothing ; others, that have been forced to suspend, that is, to postpone payment, actually discharge their entire indebtedness, dollar for dollar.

D. Such results as these lie in wait, as necessary incidents of the credit system.

T. It has worse tendencies, and a worse suite of attendants than those which we have noticed. Credit-money in the form of circulating notes and extravagant bank loans piled up, till the structure gets too broad at the top for the basis to support, topples over with a crash, and the whole community suffers. Our old State bank system is marked by its catastrophes so familiar to experience that men began to look for them as they did for the invasions of the seventeen-year locusts. Opinion had got into such a habit of anticipating business revulsions, and bank suspensions, and bankruptcies every year after the close of the Southern rebellion, and through all the eight years to which the revulsion was postponed, but came at last in 1873, from other causes than mismanagement of the currency, which was not concerned in it, or in any way guilty of it.

The most of the evil of a bad banking system is in the unregulated expansion of its credits, by which prices, both orderly and speculative, are raised and then depressed, so that creditor and debtor, producer and consumer, are losers, and the sheriff takes the hindmost. Business for a while is at a stand-still ; labor is unemployed. A safety switch has been left open ; the train has left the track ; the coroner's verdict finds the accident inevitable ; and trips on time are resumed, under an increase of speed, till the next disaster checks the train with a shock to all the passengers who have not jumped while the engine was taking in combustibles for the next inevitable explosion !

P. Banks have often been found contributing to extravagance of expenditure and to unsound valuations of property. They have made credit in its various forms over-abundant, and its promise of continuance temptingly liberal, so that speculators, and even the more prudent of the community, under the excitement of flush times, are caught, with the natural result that all alike are crushed by the failure of their reliances. The banks and money-dealers, holding the outlook from their observatory, anticipate the occulta-

tions and eclipses among the sky-flyers, and are ready to catch the larks when the airy firmament falls upon them.

T. We must not throw the whole blame of drunkenness upon the grog-sellers, nor too severely censure them for kicking the bloats, they have helped to make, into the street. The appetite of the customers for the stimulus is concerned as well as the thirst for gain of the vendors, though this may have something more of cool calculation in it.

Credit, and a representative circulating medium, are indispensable and inevitable. It has dangers, as liberty has. There is security against its risks in bondage; and the more absolute, the nearer it approaches to social death,—the safer it is from the ills of life.

D. The money medium being the instrument of commerce, ought to be equal in quantity to its intended use; and that part of it which has no other than a representative value ought to be restrained in quantity to the basis which it personates, or to what a grammarian would call its antecedent, for it is by analogy a pronoun used instead of a substantive, to avoid the too frequent use of the same thing. Like the pronoun it may be used any number of times with all the effect of its antecedent; but, just as it would be bad grammar to make a plural pronoun represent a singular substantive noun, it must be bad finance to make representative money excel in quantity the basis which it professes to rest upon.

T. By the use of that odd analogy, as if it were an even one, to illustrate an assumed evenness in the things compared, you help yourself with a familiar pattern thought; but how do you parse the proposition, I mean how do you find the concord and government of the parallel?

D. I square the simile, or put the parable on all-fours by requiring the representative to march step by step with the measure of that which it represents.

T. You mean in your form of expression to say just what Adam Smith says—I quote him:—"The total volume of credit-money which can circulate without injury in a country, can never exceed the value of the gold and silver money of which it takes the place, and which, if commerce remain the same, would circulate there if there was no paper money in circulation."

D. There Smith stands upon ground that cannot be shaken, for an image cannot be true which is not an exact copy of its original.

T. To sustain Smith you assume that paper money is only a representative of what I suppose you would call the real, or the coins of the precious metals. But credit-money is not only a representative of such real money, it is also a substitute for non-existent cash, and as such may have any proportions that are compatible with that part of its proper functions. Paper money is not limited to representatives of the precious metals, for it represents all the values which it is used to exchange, and to the whole extent of those exchanges; and as the mass of exchanges vastly exceeds the gold and silver money in any country, credit money is and must be used in commerce. The difference, calling for it as a substitute for coin, is as thousands to hundreds.

Let me add that Smith's doctrine is just the part of his teachings in which he is most in error; and that this is admitted by his most earnest admirers. Yet, curiously enough, it is just in this one of his theories that he is most followed by the doctrinaires of finance.

D. The policy that has all along prevailed for the correction and restraint of the bank-note circulation, has endeavored by limiting the issue to the resources of real money held for its redemption, to hold it sound and up to its promises. The judgment of experts in this is in perfect accordance with the common-sense or popular view of the subject.

T. With the results we have seen—especially in the history and conduct of the systematically regulated great English Regulator. The dominant aim of its latest charter was to restrain its issues to the amount of its solid securities, at the risk and even at the sacrifice of every other service it could render to the public. Its governing idea is, a sound paper currency, maintained by its instant convertibility into coin. But we have seen that this trap so carefully set and never in active service until it is sprung, is never sprung in the exigencies that call it into service.

The doctrine of Smith so far prevailed over all teachings of experience, that even in the act establishing our National banking system the amount of notes allowed to be issued was at first arbi-

trarily fixed at 300 millions of dollars, although the same act provided for adequate security, an ample deposit of United States bonds. Subsequently the uselessness and inconsistency of such arbitrary limitation was felt, and the traditionary absurdity was escaped and removed by a supplementary Act of Congress (January 14, 1875), for the reason that it is not a law of the subject, but a contrivance of theorists of the money system, reflected from an erroneous judgment of the populace.

D. Even over-abundant caution is warranted in the management of a matter of such delicacy and of so great public interest.

T. But there is no use in pushing the gun after the bullet it has discharged, to help it to its aim, if that is what you mean by the maxim *pro cautela majore*.

P. Is the issue of National bank notes unlimited now?

T. It is not limited to any arbitrary maximum amount, but it is limited by the value of the securities deposited in the Treasury for its redemption. To insure conformity of the supply to the demands of business the banks can, at any time, increase their quantity of notes by increasing their deposits of bonds, or they can diminish any casual excess by returning the notes which they hold inactive, and lifting the bonds pledged for them. So the system in operation is relieved from guessing how much of them may be required for public accommodation. In this respect the Bank of England charter compares with our circulation policy as the lock-jaw compares with a corporation having its sinews free alike in action and in repose. Our Congress, after much unavailing effort to manage the apportioned distribution of the currency geographically under the restriction of the original act (February 25, 1863), in despair of success revoked the limitation and left the supply and the distribution to arrange themselves in freedom.

BANK OF FRANCE.

P. It is understood that the Bank of France has, with permission of the Government, issued its notes without regard to any fixed limit, and, in fact, against all precedent, observing no ratio to its resources for their redemption; and yet has maintained them without depreciation through the whole period of the Franco-Prussian war, the war with the Commune, the strain of the German

indemnity, and of the home expenditure; and, through all, and over all, has escaped the dangers of a wide and wild departure from the accepted theory of the banking economy.

T. M. Bonnet, whose history of the finances of France, in the time of its terrible trials, manifests his competency as a reporter and critic, concludes his examination with—"The financial phenomena of French experience apparently reverses the economical and financial principles which the best authorities on the subject have hitherto labored to establish;" and he cries out in surprise, but under conviction which the accomplished facts force upon him: "What has happened to produce so great a change in the course of things? Is financial science assuming a new aspect, and proving that we have been all wrong in fearing irredeemable paper? Are we to learn that ideas have made progress, and that we are on the eve of realizing that famous 'wagon-way' through the air spoken of by Adam Smith—a circulation without a metallic base?"

Now, if I were allowed to answer, I should be bold enough to say, things will come about, though Hume, Locke, Smith, Say, Ricardo, Mill, and the rest of them, make no arrangement for the departures of Providence from the principles and procedure of Political Economy.

The author, Bonnet, is explicit in saying, against his prepossessions, "No one, unless an advocate of irredeemable paper currency (pure fiat money), would have ventured to maintain that we could issue bank notes in large quantities without depreciation to meet the exigencies of a public debt, not itself redeemable until after a considerable time. This, nevertheless, has happened." His surprise at this issue of the experiment might fall less heavily upon those who, very far from being advocates of fiat money, should ask, "Are we forbidden, by any sound principle, to discount the future on the ground that all labor and all enterprise are based upon expectation?" We sow that we may reap. Railroads, factories, all permanent improvements and investments, discount the future.

D. The example of France will hardly affect the banking system, so long existing and still prevailing everywhere else, I believe. It will be hard to tear up its deep-seated foundation, and

set it ballooning in the air. It will feel safest upon the *terra firma* of an adequate reserve in ordinary times, and take the storms when they arise ; or, if I may shift the figure to a less stable element, shorten sail until the tempest abates.

T. That old system, which depends so much upon its anchors, requires very fair weather for safe sailing. In 1866 the failure of one large house, that of Overend, Gurney & Co., sufficed to bring the whole banking system of England into danger. The panic was so great that the day of the explosion is called "Black Friday." Discount at the great bank went up to 10 per cent. ; there were no cheques in circulation ; business involving confidence came to a halt ; the Privy Council authorized the Bank of England to suspend specie payment ; that is, to issue notes for general relief in any required excess beyond the reserve required by the charter. The orthodox basis of the bank note was abandoned, as it always must be in the conditions in which any use of it is required ; and, wonderful to tell, England exactly followed the example of France, and thereby extricated herself from the toils of her time-honored policy of security.

But, flash the light of a lamp upon a benighted traveller, he first shuts his eyes upon the intolerable glare, then opens them with a snap, and so gets out of the woods ; but, missing the old land-marks of the highway, he gropes about in his blindness till he finds again the beaten track, and travels it as before, by the guidance of his memory. England is still walking in her own shadow, with "the light of other days around her."

D. Precedents seem to pass for little or nothing with you.

T. Precedents ! I value them as much as Bacon valued observation and experiment in discovery, but not on account of their age. Our forefathers are entitled to no more honor from us than we may expect from our successors. The best tribute we can pay to the past is to keep moving. There is no reason why we should not improve our inheritance.

P. I should like to hear as much of that French test of the old-time theory of banking as may avail for the better understanding of the question at issue. I should like to know exactly why the story is not of "the trials," rather than as it is constantly called "the example of France."

T. A very brief presentment of the instructive points of this strange eventful history is all that I can promise :

On the 20th of July, 1870, the day after the declaration of war against Prussia, the circulation of the Bank of France (which has the exclusive right of issuing notes for the kingdom, empire, or republic, as it may happen to be) was 1255 millions of francs—\$251,000,000—its cash, probably including cash items, was 1155 millions, equal to 91 per cent. of its note circulation. This large reserve made it, in the estimation of the *London Economist*, “stronger and sounder than any other in the world.” That is the way of measuring the strength of a bank by the British theorists. It was strong because it had 91 per cent. of basis for its circulation. If it had had only 45 per cent. it would have been a fraction less than half as strong, of course ; but it proved itself strongest afterward when its reserve had fallen to 24 per cent. !

D. I should like to see the supporting proof of such a paradox as that.

T. A paradox only if your orthodox is true, otherwise not. This is a doctrine then on trial, and still awaiting settlement. Hear the evidence :

The bank was founded in the year 1800. After 1806 it had the exclusive right to issue currency in the city of Paris, and since 1857, it has the same monopoly for all France. It exercises this power through about 90 branches in the departments. In 1848, in the revolution of that year, it was authorized to suspend specie payments, and its notes were made legal tender. In 1857 when the great financial crisis occurred in England and the United States, the Regents applied to the Emperor for leave to suspend, but permission was refused. The national government, by its representation in the board of directors, is absolute in its management. It is not a fiscal agent of the government, as the Bank of England is, yet its conduct is controlled, not by arbitrary provisions of its charter, but by the discretion of national authority interposed and exercised as occasion requires ; that is, the craft is sailed in stormy weather, not by the ordinary and orderly navigation chart, but by the direction of the captain. An instance of imperial intervention in restraint of its exactions from the public for its own profit, illustrates the government control : In 1860

the bank held 100 million dollars in gold, and 325 million in silver. Gold at that time was at nearly 10 per cent. premium over silver. The standard being $15\frac{1}{2}$ to 1 of the respective metals, both legal tender at that ratio. The bank had the opportunity of realizing ten millions profit by selling its gold for silver, and paying its debts in the cheaper metal. Louis Napoleon absolutely prohibited the proposed speculation. The morals of merchandizing would have warranted the transaction, but Paris would probably have gone into revolution if it had been permitted. Charters are the scriptures of corporations, to be sure, but the construction often dodges the legislative intention. (I once heard a stage proprietor say that he could drive a coach and four through any charter.) France, owing to the vast quantity of silver money in the hands and hoards of the people, is compelled to maintain its legal tender equality under the rule of bi-metallism, just as we are making 88 cents worth of bullion pass for a dollar—a policy which is mitigated by making the coin non-exportable, in our case, and is relieved in France by limiting the coinage to something near the necessity for small change, or payments in the smaller transactions of business.

D. This compensation indirectly raises our silver dollar-pieces to the rank of the paper dollar in service and worth.

T. Not exactly. The difference of its avoirdupois, and some other things are against its pretensions. It is a forced currency, and that takes some of the shine out of it. It does not travel on its own muscle. Its crutch somewhat affects the grace of its gait. But to our history :

France performs political revolution, in tragedy, comedy, and farce, as often as Paris has a grievance, or wants one, for recreation ; but it manages through all its irruptions, dissolutions, and reconstructions, to keep its finances, national and individual, in serviceable order. In 1870 the body politic was shaken to pieces by foreign and domestic war to an extreme that to any other people would have been ruin ; but it is said that eels bear flaying alive all the better for being used to it. Within ten months after the 19th of July, 1870, her Emperor was captured and deposed ; her armies were everywhere defeated ; her capital was seized, first by a victorious mob, and afterwards by a foreign enemy ; her strongholds were in hostile occupancy ; her territory was dimin-

ished, and her debt and expenditure were increased nearly 2000 millions of dollars. In this period of unprecedented national disasters, the bank advanced to the government at intervals 600 millions of dollars, and was as sound and strong at the very climax of this scene of desolation as at any time of peace and general prosperity in its whole history. At the onset of its crucial trials its great metallic reserve was the admiration of the disciples of the orthodox banking faith. It became their astonishment when it let go that anchor, hoisted all sail and committed its fortunes to the winds and waves of a tempestuous sea of credit, in which it was theoretically shown that no unballasted craft could possibly live; yet after the storm subsided, it came into port all taut, its hull sound, its rigging all standing, and its flag floating in the breeze, not a fold torn, not a wrinkle in its display. In brief, the bank's circulation, which was 251 millions of dollars the day before the declaration of the Franco-Prussian war, with 91 per cent. metallic reserve, was in June, 1871, at the end of the venture, or adventure, one month after the treaty of peace, 573 millions, with a reserve of 23.8 per cent. And, wonderful to tell, on the 9th of November, 1876, its outstanding notes stood at 494 millions, with a reserve of $84\frac{1}{2}$ per cent.!

P. Do I understand you to say that through all this inflation it kept its notes at the par of gold and silver?

T. No; but the depreciation was so trifling and for so brief a period that it is not worth mentioning. The only time that its notes fell below par was in November, 1871, six months after the close of the war with Prussia, when the first instalment of the indemnity was paid to Prussia, and then the highest rate was only $2\frac{1}{2}$ per cent. Now mark this other surprise—when its notes were at their highest rate of discount the amount in circulation was 460 million dollars, and by the end of January, three months after the first date of their depreciation, the circulation had increased to 490 millions, and the discount had disappeared. “At a single step,” a French annotator feels at liberty to say, “we issued 1800 million francs of new notes, and this legal tender kept itself at par, with a parenthesis of $2\frac{1}{2}$ per cent. at its climax in 1871, which may be omitted without injury to the sense of the story.” The figures are—circulation on 20th July, 1870, 1255 million francs;

on the 31st October, 1873, 3071 millions; increase, 1816 millions; time, 3 years $3\frac{1}{3}$ months.

D. You have said that banks are safe when their reserve is equal to 25 per cent. of their circulation, even in the principal cities where metallic money is often demanded for foreign and domestic account. And you report 24 per cent. of redemption fund in the Bank of France at the time of its largest issue. It had then an ample working reserve to sustain its circulation.

T. Safe against the home demand for specie, but when the balance of trade is against a country, as it was against France in 1871, when the foreign demand for the "money of the world" put its bank notes at a discount, self-protection drove its commercial legislation into measures of defense. After the balance of foreign trade in commodities was turned in favor of France, and the domestic credit system was freed from disturbance, the bank paid and received gold and silver just as freely as if it had not been legally released from that duty, and it could have done so if its notes had *not* been made a legal tender. We find that its specie increased from 731 millions of francs in October, 1873, when its reserve was at the lowest, to 2163 $\frac{3}{8}$ millions in November, 1876. The bank being all this time in what is called suspension, that is, released from the legal obligation to pay coin on demand. It was not bound to resume specie payment until 1st January, 1878. In fact and effect it did resume early in 1871, or as soon as the country was relieved from the foreign drain of an adverse balance of international trade. Such was its condition and credit that in March, 1876, when it held a redemption fund of 62.8 per cent. of all liabilities in cash, its shares were selling in England at 3690 francs, the par being 1000. That year it divided to its shareholders 20 per cent. upon the par price of its shares, which was equal to 5.42 per cent. of their market price.

P. How were the finances of the nation getting along while those of the bank were so prosperous?

T. Famously. As early as the end of 1874 the Financial Secretary reported that the whole 1000 millions of dollars borrowed in the loans of 1871 and 1872 had been reabsorbed by French capital. So the credit of the Government kept step with that of the bank. The question called up by this story is, I think, an-

swered correctly by Lord Macaulay in his treatment of the enormous debt of Great Britain—he says:—"There is not an exact analogy between the case of an individual who is in debt to another individual, and the case of a society which is in debt to a part of itself." In such case, when the debt is held at home, its interest retained is capital in production; labor has the benefit of its earnings, provided, as in the policy promptly adopted by France in her great necessity, its profits and its wages-paying power are not surrendered to foreign industries.

D. I suppose we are to have the doctrine of tariff protection next.

T. I suppose that you felt an inkling of it in the simple statement that France could not maintain her irredeemable currency and keep her home money good for all uses, when it was necessary to her very existence, while she was allowing her domestic industries to suffer, and was fostering that of foreigners who contributed nothing to the provision for her necessary expenditure; and, I suppose, you perceived that when France was under no necessity to export her "money of the world," she found that her own was every way sufficient for her. In other words, that she protected her life by protecting her labor and productive industries, under compulsion of the demand for some contribution toward her expenses from those who enjoyed her markets. Then France found that the reciprocity treaty with England had delegated too much of her proper sovereignty to the foreigner to comport with her domestic welfare, and that she must bar out the tramps who were trespassing upon her domain. But, let us not cross the bridge before we come to it. Let me say, however, by way of notice, that I believe the whole farago of adequate metallic reserve and legal tender might be left to the doctrinaires who occupy themselves with gnawing those old bones, if only international trade were effectively deprived of its mischiefs. Business and currency within national boundaries and in and under national order can take care of themselves.

P. I understand that the Bank of France, in the midst of the greatest strain upon its resources, when fear must have taken the place of faith and hope, instead of contracting its issues, as the solid basis system requires, to the measure of its reserves, actually

enlarged them in immense disproportion to the fund which it held for their redemption; and that, nevertheless, the notes in such immense excess maintained themselves at the par of gold. Can an irredeemable currency possess in itself such potency; or in what extrinsic aid may we find the required power?

T. That note circulation did not maintain itself at par when the balance of foreign trade requiring the export of gold existed; and, if the adverse balance had long continued, the currency must have depreciated, as it has done in so many other cases, to 50, or even a heavier discount. Nothing less than dollar for dollar in metallic reserve will keep a circulating note currency afloat under a general run for redemption. All experience proves that 25 per cent. of coin is more than is required to meet the current necessities of home business, when confidence prevails, for opinion and sentiment are potential in money matters as much as in any department of human affairs. In times of political revolution it is treason to doubt the fortunes of the republic; and the public faith never fails when it is most needed. After the armed foreign invasion of France was withdrawn, and the commercial invasion had been barred out, the reserve of 24 per cent. was found more than adequate by the bank. There is no mystery in the portentous phenomena of this history, except the mystery of faith resting upon an assured defence against the hostility of foreign trade.

P. When I interrupted you for the purpose of getting a more familiar command of the principles of the bank system, you were about to enter upon the economic rules which govern the paper money supply.

T. All departments of knowledge that relate to practice are two-sided. They divide themselves in study into theory and art—a directing spirit and a working body. They are *distinctly one*. The force and use of the one is manifested through the other, and they test each other. The banking system is the machinery of its principles. The circulating note is the common instrument of the common credit system. The note, unlike the check, draft, or bill of exchange, serves in the commonest, broadest, and most essential business of the people. It is *their* money, and is mainly used in their retail transactions. The wholesale credit money of capitalists has not the same use, and does not need the same medium.

The circulating note is ever on the wing. It has no leisure to earn interest for the holder. Its travels and adventures would be such a history of the common life of society as never yet was written, or ever will be. During the eighteen years following the suspension of specie payments in the United States, which commenced in December, 1861, in connection with an equal amount of Treasury notes, or greenbacks, of substantially the like character and use, these notes were the currency of the country. Gold and silver money being demonetized, and at a very high rate of premium, were driven out of the common service. Here we have the vast business of a nation, growing from thirty-two to over forty-five millions of people, and with a capital wealth rising from less than twenty to above forty millions, measured by the money in use; a war expenditure of quite five thousand millions above that of any other five years of peace, and carrying on besides permanent internal improvements of unparalleled outlay,—all effected by the agency of a paper money usually styled irredeemable, and actually inconvertible at its face value into the “money of the world.” This inventory would be complete only if we could put into it the items of its service as a medium for effecting the exchanges of commodities and services of a people who in the time lived through the ordinary experiences of a hundred in a score of years.

Is there anything in this story, or is there anything yet to come of it, to keep in countenance the financial disesteem of theorists for the circulating note? It had not the cosmopolitan reputation of a “world’s money,” but it did gallantly earn and vindicate the claim to the worthier title of *American* money. It never deserted its own standard, or went into foreign service. It bore the stripes of the conflict, and kept burning with its stars till its victory was achieved.

P. Yes, yes, they redeemed the nation while yet unable to redeem themselves. How long did they stand, and how low did they sink in the broker’s scale of equivalents?

T. They went down from par in December, 1861, to 285 for 100 gold, in July, 1864, and recovered their exchange equality before the 1st January, 1879. But in all this period of eighteen years, except in the payment of old debts, and in the value of salaries and annuities, they balanced relative values in current

exchanges as well as gold could have done. They raised market prices to a substantial equivalence; that is, they took care of the live business of the period, leaving the dead to take care of itself. Limited, under the adequate reserve doctrine, at the rate of one for one, they would have been as miserably scant in supply as the "precious" must have been; yet, judged even by the arbitrary standard, they eventually fulfilled all their promises. Just as soon as the Treasury began to pay its debts in the world's money they discharged theirs, and now they outrank their rival. The national Treasury will not exchange them for gold. But this is only incidental to our inquiry into the machinery that supplies them.

P. The provision of currency, being the prerogative and the duty of the civil government, the mechanism or organization of the agencies ought to be prescribed, in order that unity of action and aim among them may be controlled and secured; and for this reason the whole system should be held within the jurisdiction of the national authority. Making in effect a multitudinous national bank, as the mint that coins the metallic money is the national provider of its kind of circulation.

T. With the difference that the issue of paper money is not a mere mechanical action upon a raw material having an intrinsic value, by change of form and authentication of weight. The circulating note has no other than a *service* value. These two kinds of medium are not so exactly alike that they can be treated as subject to the same management in all particulars, though they answer the same common purpose. In one respect they are alike: a national Treasury office cannot, any more than a national Mint, perform the functions of a bank of discount and deposit, and in no proper sense, that of a *bank* of issue—that is, it cannot be a dealer in the money market. The office of the sovereignty is not the management of business exchanges. All our paper currency now is directly or intermediately a promise of redemption by the Treasury. Our greenbacks and national bank notes are in this alike. In another respect they are unlike. The greenback is simply an assurance of its own value; the national bank note combines private responsibility with that of the nation. The nation is no farther involved in the administration of the general banking business than as security for its credit currency.

Observe that a bank may be styled national, which is only a fiscal agent of the government, as was the Bank of Venice, and that of Genoa, or as the Bank of England, or the old Bank of the United States might be so styled. In our present use of the term it means only that the general system is, to a limited extent, under the warranty and control of the government: the conduct of the individual institutions in their business with the community being under the management of the private shareholders.

P. The proposed abolishment of the national bank circulation, and replacing it by an equal or sufficient amount of United States notes, or greenbacks, would not take away the necessary agency of banks, or money offices, if the national Treasury cannot perform all the offices of the banker. All the difference which such a displacement of the bank notes, and replacing them by greenbacks would be, making them read "the United States" instead of "The National Bank" of — will pay to bearer — dollars.

T. That difference would be nothing in the value or security of the note. But it might open the way to a release of the substituted institutions from the existing supervision of the government; and their customers and the general public might be left to such care or carelessness as the many-headed and many-minded State governments would substitute. Congress could forbid any other circulation than its own issues; but there its control would necessarily end. The convertibility would not be better assured in promptitude or certainty. But I have not seen, nor can I imagine any analysis of the system proposed that is clearly understandable. I have met nothing in its argument but faults alleged against the system which it attacks. Nothing whatever amendatory in the proposed change.

P. I did not intend to introduce a discussion in the form of a debate with the Greenbackers. I merely desired to have the requirements of a banking system canvassed.

T. The banking system, resolved into an instrument, a sub-medium, ancillary to the money medium, its use is essentially, indeed wholly, in its *convenience*, and this quality and character must rule its policy all through its details. Not only the currency which it supplies, but the collocation of its places of business are required to be convenient as depositories, as clearing houses, as

reservoirs and distributors of money through the channels which lead to its appointed work. As administrators of all these offices, banks are required to be adjusted to vicinages of such areas and business activities as will bring home their services or make them handy. Their number should be limited by no other conditions than convenience of location and conformity of expense to the service they are to perform.

D. Admitting these requirements as to the distribution, and, resultingly, to the number of these money-shops, it does not follow that they should all be incorporated, or all supplied with circulating notes of their own issuance.

T. Under the existing system the notes are of nowhere in particular and everywhere in general. Whether put into circulation by a corporation in Maine or in Dakota is indifferent. They are universally good, and equally good, whether the particular bank that promises to redeem them is broken or sound; but it is something to have them under such supervision, impulse, and restraint as makes of the whole of them one body, governed by one head, so far as the parts can be put under its direction.

P. There are now above two thousand of these national banks in the United States. Is this number found to answer all the ends in view?

T. The distribution and location are left to adjust themselves in perfect freedom, and to correct their errors as freely as to make them. Some of these banks go voluntarily into liquidation. They are governed in place, number, and capital, as all other business is, by the circumstances around them. In this respect it is the freest and best system of banking that ever was devised.

This policy is like that long in operation in Scotland, which is agreed, on all hands, to have better borne the test of time and experience than any other under the old time regime in Europe or America. They have been distinguished by their freedom from disturbing fluctuations in the amount of the currency which they circulate, and by their complete exemption from those epidemic failures which have so frequently visited England and the United States. Single and singular failures have happened in perhaps half a dozen instances within the present century through fraud and folly of the directors, just as "accidents happen to the best of

families." But they have earned and enjoyed a reputation among the people, high and low, so well assured that in Scotland there is no horror or terror of banks, no distrust, and none of that perpetual endeavor at change in policy which constantly agitates the other peoples who are still trying to make the old bottles hold the new wine of financial revelation.

P. If the Scotch banks enjoy such public confidence, what is the manner and what the means of securing a trust so constant and complete?

T. Mark well, and inwardly digest their peculiar policy. They allow interest upon deposits at only 1 per cent. below the current market rate, and so enlist the whole mass of provident people in their support; for a vast popular interest is thus at stake upon their solvency. They lend money upon bonded securities—a system which would break banks in any degree tender in reputation, or devoted to the main and governing notion of convertibility by adequate reserves in cash. Their customers thus get operating capital on loan in advance, instead of waiting until they have the proceeds of their enterprise in notes of hand for discount; that is, it is not on values already produced or earned, but on those to be earned by aid of credit, that the borrower receives timely aid from them. They are really and effectively credit agencies. Besides all these conveniences provided by the Scotch banks for the industrious public, they issue notes as low as one pound. No old foggy fear of driving out the "precious," which is never adequate, by its substitutes, you see. Another reversal of the popular and established doctrines of the money laws. On the contrary their money system looks to the common weal in all its workings. It takes care of the people and they take care of it.

P. Does the distribution and collocation of money offices in Scotland tally with that of our own country under our present system of banking?

T. In 1870 Scotland had 11 banks and 689 branches, say 700 banking offices. The population at 3,400,000 would average 1 such office to 4857 people of all ages. They are distributed over an area equal to only two-thirds of that of the State of New York, with a population 30 per cent. less. It is said, upon authority, that they extend into every village in the kingdom. In general

average it had 1 banking office to 84 square miles of territory ; Pennsylvania had then 1 to 232 square miles ; New York, 1 to 150 ; Massachusetts, 1 to 38 ; Rhode Island, 1 to 21 ; and Ohio, 1 to 296. These territories divided into equal squares would give a radius, or half diameter, of $4\frac{1}{2}$ miles to Scotland ; to Pennsylvania, $7\frac{1}{2}$ miles ; to New York, $6\frac{1}{8}$ miles ; to Massachusetts, 3 miles ; to Rhode Island, $2\frac{3}{10}$ miles ; and to Ohio, $8\frac{1}{2}$ miles. This, however, presents the plat without distinguishing the varied occupation of space in cities and villages, in mountains and plains. If the proper adjustment to population and business were made it would probably bring the banking offices of Scotland quite up to the allotment of Rhode Island.

In 1871 Scotland had a total population only equal to $14\frac{1}{2}$ per cent. of that of England and Wales, but it had then a note circulation equal to $19\frac{1}{10}$ per cent. of theirs ; having a requirement no larger comparatively than as Edinburgh compares with London, and Glasgow with Liverpool. A circulation one-half less would scarcely put it on a level, their respective business requirements being considered. In fact 1 to 20 would not be too much.

As a general judgment carefully formed of the Scotch banking policy, I submit an extract from Mr. Colwell's *Ways and Means of Payment*, p. 425 :—" In Scotland the preference for a paper currency is strongly marked in all the channels of business. Neither the Rebellion of 1715 nor 1745, nor the disturbances following upon the French Revolution of 1793 and 1797, which stopped the Bank of England, nor the grand crash among the English banks in 1825, could alarm the Scotch people or produce a run upon their banks. No currency of modern times has been more effective and less fluctuating in value and quantity than that of Scotland. This is expressly admitted by Committees of both Houses of the British Parliament."

Let me introduce another quotation from the same author : " An opinion has grown up and become a law in the act of 1844 (the charter of the Bank of England), that a paper currency, to be perfect, should fluctuate as a gold currency would do, if it were the sole medium of payment. To the mind of a Scotch banker, a greater absurdity could not be presented in as many words. He would say : ' What ! when a demand springs up for gold, in con-

sequence of some foreign war, must we so regulate the issues of our banks as to reduce the currency of notes in the proportion that the currency of gold is carried off? Rather should we increase our issues, and supply the place of the currency that is exported.' ”

P. What is the quantity or proportion of bank notes required in the business of Great Britain, France, and the United States; or at what figure would the provision of notes be clearly below the requirement, and at what amount would they reach the stage of what is called inflation?

T. The data for a calculation are exceedingly uncertain. Their volume for the service of business cannot be fixed even for an approximate estimate. Under any determinate amount the provision arbitrarily made and limited is sometimes too little, and sometimes redundant. Money of all kinds is thus under the laws of trade as other commodities are. Estimates made for any time or place in arithmetical figures are not worth the trouble of the inquiries and conjectures. Our amended national banking system has upon good grounds fairly abandoned the problem. In some parts of the country a very large part of the payments made require money; in others only an infinitesimal quantity is used or necessary. Where there are few banks or bankers, much money in form is needed: where banks acting as clearing-houses abound, more than nine-tenths of all payments are made by set-off, or an exchange of debts for credits. In the season of the year when our agricultural products are being moved from the West to distant markets much cash is in demand.

And as to difference of place: In California there has usually been more than twice or three times more in circulation than in Virginia. In the Southern States a very considerable increase is required since the emancipation of the laborers. Moreover, just as exchanges are better regulated,—that is, as banks and clearing-houses gather up debts and credits, and balance them against each other, money is eliminated. For example: England and Wales reduced their circulating medium in the ten years, ending in 1874, more than 18 per cent.; while the exports and imports of British and Irish products increased above 40 per cent.

You see that a circulation of cash should be elastic, and that its

volume should expand and contract like a spiral spring to effect its adjustment to service.

P. A spiral spring has the convenience of meeting the weight it is intended to support; and it would be an odd sort of a balancer if it were wedged up or tied down to a certain notch on the registering disk.

T. You have fairly disposed of an arbitrary maximum and minimum in the measurer and supporter of a variant pressure. The national bank constitution has perfect provision for every change in the movement of the business it is intended to serve. It is limited, on the one side, only by the securities pledged, and, on the other, it adapts itself to the range of the requirement without any jar or break in the machinery.

D. The opponents, however, allege that the plan affords a doubled profit upon the circulating notes issued from the Treasury to the banks,—that they draw interest upon the bonds deposited as securities, and another interest upon the circulation based upon these same securities.

T. I can't think of going into a party wrangle. That would carry us away from the drift of our inquiry into the fundamental principles of banking and currency. We find switch-tracks enough along our own thoroughfare that are not quite avoidable. But I consent to a digression long enough and wide enough to show that the objection, as you present it, is too broad for the facts on which it is made to rest.

First. The national bonds deposited, paying 4, $4\frac{1}{2}$, 5, and 6 per cent., are as much the property of the shareholders, and as much entitled to the accruing interest as if they were held in unincorporated hands. They are as liable to redemption and to refunding at lower rates of interest as if they were held by any individual in the nation. Does the objection lie against the payment of interest upon them?

D. Of course not. But the other interest that the banks make, or may make, by lending the notes which represent exactly the same property-right and resulting interest which they have in the bonds. That is the matter to be disposed of.

T. How much, or whether there is any profit arising from the

circulation, ought to be settled, in order to get at the answer to this allegation.

D. In New York loans carry a legal interest of 7 per cent. per annum; in other States not less than 6 per cent.; and, in some parts of the country, 10 per cent., or larger, if fixed by contract between the borrower and lender.

T. You have stated the legal rates chargeable and recoverable under the laws of the local legislatures; but you have not ascertained the actual net rates realized by the banks. Be careful that you do not over-charge the product of the privilege which they enjoy.

D. I am not sufficiently acquainted, for the purpose of this calculation, with the amount of the abatement that may be claimed from the customary rate of profit upon the sum delivered to the banks for their use.

T. Neither can I act as an accountant to settle this point with any one of the institutions, nor with the whole of them; but let me submit some of the facts that are involved in the question.

In the first place, a fair presumption arises from the fact that the opportunity for securing the advantages of this circulation is open to all capitalists, to an unlimited extent, yet the fact is that when, in November, 1879, the organized banks were entitled to draw from the Treasury 388 millions of notes, there had been issued to them only 319½ millions, leaving not called for 68 millions. If the circulation were so profitable as is alleged, why did they not avail themselves of more than four-fifths of the amount which they were entitled to?

But still more decisively as to the charge of a double interest upon the investment in the bonds pledged for the note securities, the Comptroller, who must be allowed to understand the force and effect of the figures which he handles, shows that subtracting the taxes, National and State, imposed upon their circulation, the net profit would be no more than $1\frac{7}{10}$ per cent. upon the amount which they deposit in bonds for security if they loaned them at 8 per cent., and $1\frac{3}{10}$ per cent. if at 6 per cent.

D. There may be causes operating and abating the profit upon circulating notes which withhold outsiders from rushing for them upon the issue department of the Treasury, and also restraining

the national banks from drawing their full allowance. I have already said that I am not sufficiently acquainted with the pros and cons of the case to meet the apparent facts that bear upon it.

T. For the details and proofs of the Comptroller's calculation, I must refer you to his annual report of 1879—you will there find its conclusions thoroughly sustained.

The difference between the loans of these notes at 8 and at 6 per cent. may be averaged at, perhaps, one and a half per cent., but there are other items that so far diminish the profit on them as may possibly reduce it to nothing. The circulation ought to be charged with its proper share of the banks' expenses in the conduct of their business, and of the losses sustained by default of the borrowers. Now the total losses of the national banks in the last four years have averaged above \$20,000,000 per annum; and the current expenses over \$6,000,000. That one and a half per cent. net profit over the national taxation upon the circulation, the bonds being assumed to be reduced to four per cent., as they are rapidly being, will hardly cover losses, expenses, and the constantly declining market value of the bonds as they approach maturity, which last item of abatement of profit must also be considered as these bonds must be purchased by the shareholders at a premium which will be totally lost when they become payable, and are losing that premium all the while, until they shall be worth no more than their face value. What now has become of the alleged double interest so much complained of?

P. Assuming that banking profits proper must come from loans and discounts (excluding the investments in United States bonds and other stocks), I have been looking, since our last meeting, at the ratio that they bear to the circulating notes, as their means of business profits. Let me submit the results:—

In October, 1879, 2048 national banks reported their aggregate loans and discounts at \$878,503,097; their circulating notes, less the amount on hand or unused, \$297,078,812. Thus the notes, active and outstanding, were but 33.8 per cent. of their loans and discounts, or say one-third of their profit-making means employed.

The average of the notes to the loans of the 6 years (1874-79), fell to 32.04 per cent., and of the half year ending 11th of June, 1880, they stood at 29.88.

But I was especially interested by the unlike employment of these notes by banks, situated as to their respective business communities. My examination shows that the larger the centres of business, the less is the proportion of notes used, and the largest institutions in the same localities, having the larger amount of deposits, usually employ the less amount of notes drawn from the Treasury, indicating that the promise of profit from their use is not, in itself, as inviting as might be supposed on the supposition that they are a means of deriving a double interest on the bonds deposited for their security. For instance:—

The circulation of national bank notes by the *country* banks of Massachusetts is equal to $60\frac{1}{2}$ per cent. of their loans and discounts; while that of Boston is 31.2 per cent. The country banks of New York State, 45.4 per cent.; that of the city, but 11.4 per cent. Of Pennsylvania, 54 per cent.; of the city of Philadelphia, 26.8 per cent. That of Maryland, 53.4 per cent.; of the city of Baltimore, 29 per cent. The State or country banks of Ohio, 52.8 per cent.; of Cincinnati, 27 per cent. The State of Illinois, 38.2 per cent.; of Chicago, only 3.34 per cent. There are further proofs in the same direction, or that the larger banks employ the less of this kind of currency. The Fourth National Bank of the city of New York has but 5.78 per cent. of its loans and discounts in notes of its own. The Chemical Bank has none at all; its loans and discounts amounting to upwards of $9\frac{1}{2}$ millions; its business is based upon its capital, surplus, undivided profits, and deposits, aggregating \$14,616,835. The Fulton Bank of the same city employs none of its own notes; and the City Bank, also, has no notes outstanding; its loans and discounts are within a fraction of 7 millions, its deposits $9\frac{1}{2}$ millions. All the other banks of that metropolitan business city have only a very small percentage of their public accommodations in national bank notes of their own issue; aggregating and averaging only 11.4 per cent. of their loans and discounts as against those of the country banks of the State, which reach 45.4 per cent.

To the like inference, the several States of the Union which have a less active business exchange, have a proportionately greater national bank circulation. Their money medium being proportionately the greater to their means of settlement of balances.

Thus, the notes used in ratio to loans and discounts in West Virginia are 56.4 per cent. ; in Georgia, 61 ; in Florida, 62 ; in Alabama, 76 ; in Kentucky, 63.6 ; in the District of Columbia, 93 ; and in Washington City, 58.2 ; or, in the District including the Federal City, 64 per cent.

Indeed, so well and generally is the use of the circulating note employed in inverse proportion to the wealth and business activity of the regions, that their rank might, other circumstances being allowed for, be estimated by their relative amount to that of the general credit system.

You have elsewhere said that the measure of fixed to floating capital in a nation, or state, or community, is the truest measure of its real wealth and grade of civilization. In the proportion of the circulating money medium to the total exchanges of a people's business, it seems to me that a like indication of their business prosperity may be seen. Or, as you have said, the more and more perfect organization of exchange values that is effected, money in form of coins and notes is the more and more eliminated, and credit is substituted for cash.

T. In making the general statements and the inferences from facts which I believe support them, I do not submit them to the exact figures of statistical reports. In them you find more of bookkeeping rules than of practical issues ; and, they are, besides, subject to many modifications of their apparent footings and balancings. You were, perhaps, surprised to find that Chicago had but $3\frac{1}{3}$ per cent. of its loans in its outstanding bank notes, while Boston had above 31, and New York City had 11.4. The explanation, probably, is that Chicago sold its deposited bonds when they were commanding a high premium, and depended upon its deposits for its current cash, while the two other cities had their own reasons for a larger use of or reliance upon their note circulation. Figures are not responsible for the facts which they seem to represent ; and, especially, they do not support all the deductions which inexperienced people draw from them. With the required allowances, I think your investigation of the bank reports fully sustains your conclusion that the circulation of the national banks, where they have other profitable resources, is not an attractive investment, and that it is mainly used only by the institutions which have compara-

tively small deposits to work upon. You will doubtless have observed that the smaller banks in the principal cities have a circulation of outstanding notes greatly larger in proportion to their business dealings than those which have a higher standing with the people. Conditions are always to be considered, outside of arithmetical results. I have no doubt that twice two make four, but it is equally certain that the doubling of an excise or impost duty does not yield a double revenue. Our Congress has time and again ventured upon that solution of the tax problem and always failed of the expected product, sometimes by subtraction, sometimes by multiplication, under the rules of arithmetic, with uniform disappointment. Just as some people imagine that an increase of money issued must increase its quantity for use—which is a similar mistake.

CHAPTER XIX.

INTERNATIONAL TRADE.

D. I am glad that we have reached the subject of commerce. The discussion of its topics threatens less friction with the authorities than we have had up to this time. The pervading philanthropy of international association in business affairs has an obvious tendency to make “the whole world kin.” Its ministry in the distribution of nature’s beneficence, which is partial in allotment, as if for the very purpose of compelling interchange and effecting a virtual partnership in the cultivation and interchange of the products of all regions, climates, and capabilities of the earth,—must meet the aspirations of a universal brotherhood, and tends as far towards communism and coöperation as can be made to work smoothly in the plan of universal association.

P. Oratory and poetry, impassioned by universal benevolence, concur in regarding the commerce that brings distant nations, and, unlike tribes of men, into familiar, reforming, and ameliorating mutuality of influence upon each other, as a civilizer, educator, wealth-producer, harmonizer, and organizer of the world’s social and industrial interests.

T. Between you, you have drawn a sufficiently correct copy of the usually highly colored picture of all the virtues of international trade, paraded in solid column, and in full march upon all the evils of the five quarters of this disordered globe, with the millennium in purpose and perspective; civilization chivalrously devoting itself to the redress of all the ills of barbarism, and to the happy reformation of all the inequalities in the conditions of the more advanced nationalities,—the armies of trade spreading the tidings of great joy to all peoples,—cosmopolitan philanthropy bearing peace and goodwill to all men!! “How beautiful upon the mountains [and the seas] are the feet [and fleets] of them that bring good tidings, that publish peace!!” (Isaiah lii. 7.)

But allow me to call your attention to some of the facts of this history—a very different picture, truly. The North American Indians have not prospered in their international trade. It does not seem to work well among parties in greatly unequal conditions. Hunters do not improve their hunting-grounds by trade with those who cultivate theirs. That may be owing to the utter incapability of the savage; but, among a people much less unequal by qualification for the strife, how is it? A member of the British Parliament lately said, “Some of the finest tracts of land in India have been forsaken and given up to the untamed beasts of the jungle. The motives to industry have been destroyed. Go with me to the northwest provinces of the Bengal Presidency, and I will show you the bleaching skeletons of 500,000 human beings who perished from hunger in the space of a few short months; yes, of hunger, in what has been called the granary of the world. Famines have continued to increase in frequency and extent under our sway for more than half a century.” Foreign trade in this case shows no signs of benefits conferred upon the weak by the strong. Here it seems the divine order is reversed. The angels of traffic do not minister unto the heirs of salvation.

Under the influence of international trade Turkey has become “the sick man of Europe.” The Portuguese, once the masters of maritime commerce, as you fondly call it, have changed places with their former victims. In the language of Mr. Cobden, “Turkey and Portugal have become a burden and a curse to England.” And how have Ireland and the West Indies fared?

The apologists of the system urge in explanation of the mischiefs which it works : The Turks are Mohammedans ; the East Indians are Pagans ; the Irish are Celts ; and the Portuguese, though Caucasians, are Catholics. These are the reasons why the ameliorations of foreign trade have not resulted to them. But they had all these characteristics before England had made herself the workshop of the nations and the mistress of the seas. Something has happened since “ her march was o’er the mountain wave, her home was on the deep ;” since she has needed no protecting “ bulwark ” against her former rivals in maritime trade.

In sober truth this trade, until within the period of a couple of centuries, was simply what we now call piracy. Its occupation was pillage of chattels, chattelizing of men, and the extension of political dominion for the maintenance of industrial supremacy. Sir Walter Raleigh went abroad upon the high seas with Elizabeth’s commission as a privateer ; and John Newton, after the birth of Washington, went into the slave trade on the coast of Africa, with an outfit of hymn books and hopples, prepared for the civilization of the heathen ! The slave trade, as a branch of legitimate foreign commerce, was not abolished either in England or the United States until after I was born. In fact the morals of maritime adventure and trade were the last to be reformed in the conduct and policy of international relations.

Have I overstretched or overcolored the history and character of this thing which you call commerce, as if it were an equitable interchange of advantages ?

D. But it is now, and has been for a long time, the subject of public law and treaty, having peace and equity for their aim and rule.

T. Aye, the trade has given up the instruments of violence for the equally effective agencies of peace. Changing with the changes of times and manners, it now makes its predatory invasions in the force of traffic for the subjugation of every feeble member in the general scramble of aggressive competition ; seldom and unnecessarily in these later days, using the power of arms to open the way for the superior skill of hands, and the domination of larger capital.

D. Oh ! I understand. A paper partition substituted for the

Chinese wall of defence against the Tartar invasions—a protective tariff for an effective barrier against cosmopolitan commerce with its destructive intendments. Ah!

T. I do not choose the alternative of seeming either a fool or a fanatic. I would have national independence maintained by a policy of foreign trade strictly *defensive*—nothing more, nothing less, and nothing else.

To state the law and gospel of international trade—its liberty and proper limits—it is, in general terms, allowable only where and when it is in the nature of things unavoidable, or when and where the welfare of the parties demands it. In other words, there cannot be legitimate trade freer among nations than between individuals; otherwise it is not commerce in the proper meaning of the word. Or let me condense the rule into this form: all exchanges of property and services are in their true character *compulsory*. Is that statement broad enough?

D. It is a broader bit of logic than I thought a protectionist would avow in debate. In that attitude it offers fight at great odds to the opponent.

T. Then let me lay out its length and breadth by metes and bounds in full survey. In my apprehension of its principles and operations, it provides for, and allows, the barter of surpluses of natural or accidental differences while they exist. It levels the hills and lifts the valleys of industrial capabilities; it interchanges the advantages of all parties differently conditioned, and secures each in the benefits of its own, and in fair participation in those of every other; thus serving the aggregate man of all nations, as the hand helps the foot, and the eye supplements the ear in the individual organism. And more especially, and above all else, it so coördinates exchanges of the common interests, that it suffers none of the agencies to interfere with any other. This, its appropriate rule and governance, is grounded upon needful and helpful *differences* between the parties engaged in such interchanges, which is the only rightfully called commerce, contradistinguished from its abuse, which I choose to call *trade*, when the character of exchanges are designated by their differences of effects.

The proper meaning of the word commerce, confines its application to exchanges of differences. Reduced to its logical and

practical significance, commerce between nations means, or should mean, supplementary supplies, not competitive traffic. It means the harmony of varieties, not the domination of advantages. It means, if not equal, at least common benefits, in which each of the contracting parties has its interests promoted. Any other system of trade is simply spoliation, whether between nations or individuals. Commerce is not virtual war under pacific forms; it is the peace of equal justice.

Moreover, commerce is not lawless. It is conditioned, not unconditional. It must be held in keeping with its proper service. Its broadest and most constant condition is in the necessity of importing whatever of the useful cannot be produced at home; whether from hill or valley, stream or mine, or soil, or from a distant country. In respect to natural products—the temperate zones must bring the products of the torrid and the frigid from the climates and soils and seas which yield them, if they would have them. We must get our finest furs from the north, and our spices from the south. Commerce in such commodities must be *across* climates. The like natural law applies to wines and wheat, to ice and ivory, and to all things dependent upon topographic conditions. In these cases, and to this extent, and with these limitations, commercial exchanges are *supplementary*, indispensable, and unchangeable, because they are always free from competition and the mischiefs incident to it.

Such are nature's laws; and customs must either war against them or conform to them, with the inevitable results.

D. How about the domestic substitutes for such climatic products? Cotton, produced in Texas, rivals the silk of India; the fermented liquors of regions that grow no grapes meet foreign wines in the home market. Would you bar out the real in favor of the imitation?

T. You have not mentioned a perfect substitute, nor do I think you can find one, in a wholesale or retail inventory of goods anywhere on sale. Beer is not wine for all uses; neither is cotton the identical alias of silk. A preference of taste, or of economy, is a matter for settlement which does not involve the principle of domestic against foreign competition. The new, even when it displaces the old, works itself into use which municipal law can

neither help or hinder. It defends itself against all rivalry, except that of its own kind in international trade. All progress is arbitrary change by substitution.

D. Inasmuch as protective tariffs are mainly constructed in reference to manufactures, and very seldom embrace raw materials in their defensive provisions, free trade as commonly plants itself against restrictions upon the importation of artificial products. And I do not see that you gain either time or strength by developing the exemptions of articles that are governed by climatic laws.

T. You are now, perhaps inadvertently, but none the less correctly, arraying free trade against the interests of skilled labor, with a decided favoritism to that drudgery of industry which holds it to the grade that belongs to the earlier stages of civilization. Think of that. Manufactures in their modern condition employ the natural agencies that mark the advancement of society. Agriculture without their aid and reflected influence is simply the barbarism of art. But to your objection I present the true system of defensive import duties as the only one that can relieve all non-competing imports from taxation. Its exemptions stand upon the principle that supports and authorizes its restrictions; while a tariff for revenue *only* is in essence and operation taxation inflicted, like domestic excises, upon values, without regard to any other interest than that of the national revenue. Notice this grand difference. Free trade is taxation in its intention and operation; but protection, on the contrary, intends the defence of domestic industry. When you use the word taxation as an epithet be careful to apply it where it logically belongs.

D. You do not put artificial products upon the same ground with the natural, in respect to international commerce.

T. The difference between them is the ground of dispute about them.

D. I always thought that there is a good deal of complexity, if not confusion, in the doctrine, as well as in the framework of protection. Manufacturers frequently complain of the inequality and injustice of the rates imposed by its schedules of duties; and, as to the policy, did not Mr. Clay and Mr. Webster throw the weight of their advocacy upon the right of countervailing duties to meet and punish foreigners who taxed our exports in their markets?

An argument, by the way, that had great show of justice or retributive justice, at least, while its provocation continued; but lost all its force when the free trade system of England was inaugurated. Others, in the past and present time, rest the fostering care of our manufactures upon their *infancy*—the helplessness of their immaturity—though they have enjoyed the nursing of about a sixty years' minority, which, if by nature capable, ought to have come of age by this time.

T. Mr. Clay and Mr. Webster were politicians, or, if you will have it so, statesmen of their time, and naturally addressed themselves to the exigence in which they were involved. The philosophers of the party, even in their day, had other reasons for their opinions; and, in the changes that time brings with it, we are certainly at liberty to rest the doctrine upon its fundamental principles, which abide under all changes of outside conditions. Besides, both Clay and Webster were, through the whole period of their interference, candidates for the presidency of the Union, while the subject was under discussion, and, accordingly, they accommodated their theories to their prospects. They can be quoted on both sides of their great question.

Setting aside all mere generalities upon which no pertinent issue can be joined, propose some point or points of exception to the principle and substance of protection, and, if you could at the same time, indicate the corrections that are in free trade, we might get up a case upon its merits.

D. Well, with leave to amend my charges as the occasions arise, I complain, first, that:—A tariff of protection is necessarily class legislation, with these specifications:—If it contains a free list, and if it varies the rates of import duties upon different articles, as it always does, it is unequal, and, therefore, inequitable in the burdens imposed.

T. To the loose general charge of class legislation the objection lies that it is indefinite. Copyright and patent-right are protective of a class or classes, and prohibitive to all but the beneficiaries. So are the laws that assign remunerative duties to official functionaries. Executive appointments make a class of public officers, and reserve the fees and salaries to persons so selected. All these favored and protected persons are monopolists, if an epithet is to

be preferred to an argument. Have you any objection to these monopolies?

D. I am not engaged with this sort of analogies.

T. Then you should not provoke them by indefinite and vague epithets in a general charge of inequality.

D. If your reply can serve any other purpose than a rebuking criticism of a phrase, improve it by applying it to the specifications which it is plainly meant to cover.

T. Right. Your rejoinder is direct to the purpose and to the point in hand. Equally direct and plump as are the applications of the analogies used, I say that if I lend money to one man who will use it to give employment to a hundred laborers in work that affords a support to them and to their families, I have in effect, if not in purpose, conferred the benefit upon the whole hundred and one, and their dependents, in proportion to their several abilities to avail themselves of it; and I have not limited its advantages to that one who is thus made a conduit of a general, though graduated, supply. I have not made a monopolist.

D. But suppose that the distributing agent of your bounty is one of the class of great manufacturers, and your helpful fund is confined to his employés; and further, suppose that you are personating the common government; has not your beneficence the limitation and exclusiveness of a favor to a class, and so become fairly liable to the charge of partiality and inequality of remedial measures, if such charities may be allowed that character?

T. You have put me into the hardest position to maintain, by likening the favor conferred to the system of bonuses accorded in the olden time, or the earlier time, for the encouragement of industrial enterprise,—such as that adopted by Colbert, the great financial minister of Louis XIV. He gave directly from the imperial treasury two thousand livres (\$400) to each loom put to work, for the purpose of establishing the textile manufactures of France, and to which, by the way, they owe their origin and great success then and ever since. The like policy has been, in a multitude of instances, followed by the governments of Western Europe, and has mainly contributed to the superiority they have achieved over their Asiatic rivals. But this policy, however recommended and justified by its necessity in the circumstances, proved

to be liable to abuse, and was, under the favoritism of governments, so greatly abused that it has fallen into general reprobation. It was perverted into monopolies, and class and individual favoritism. Such perversion is only a good objection against a principle specially liable to it. Nevertheless even in such cases, the rule still holds that, "if one member of the body be honored, *all* the other members rejoice with it."

The policy is still allowed under cover of some sheltering justification, such as subsidies in the guise of contracts for carrying the mails at sea, or gifts of public lands, and the loan of the national credit to railroad corporations for carrying the mails, and for military transportation across the deserts and over the Rocky Mountains of the United States. These are in effect, and indeed in intention, bonuses, equivalent to money paid out of the public treasury in support of enterprises that are warranted by the imperious necessity for government intervention,—the expenditure looking wisely and impartially to the diffusive beneficence of the grant. A nation, being in its welfare an unit, is as much interested in a fort on its frontier, a man-of-war on the ocean, as in a railroad in its centre. The stomach does not engross the food which it receives; the common circulation distributes it in due proportion to every member of the integral body.

These examples, however, are not such instances of the protective policy as are directed absolutely, and made securely operative, beyond the peradventure or misadventure to which bonuses in form are exposed.

D. I concede the utility of bonuses that are indispensable in aid of public improvements and defences otherwise impracticable; but I stand upon my objections to legislative interference in the pursuits of private business affairs, through the infliction of the burdens and restrictions of the protective system.

T. I infer that you allow special legislation, favors, and grants, not only because their objects are impracticable without such aid and exclusiveness of privilege, but because they are required by the common interest of the whole people, and are prospectively impartial by a ratable distribution of benefits upon the community.

D. Of course it is the ultimate operation and effect of any special grant, whether it is a railroad, a passenger ship, or a

patentee, or any other contributor to public and common benefit, that takes it out of the category of unwarrantable class legislation.

T. That is all I ask or need upon our main point. But, before I apply it to the law of import duties, prohibitions, and embargoes, I must endeavor to settle an intrinsic question, in order to prevent its obstructive interference with the progress of the discussion which we are engaged with.

D. We had better have it as an episode than a muddle. What is it?

T. You will find it in this proposition: Protection is not taxation in its spirit, purpose, principle, or, in its operation.

D. Maintain this proposition and you muzzle your antagonists, for their argument is a complaint, rather than a policy, resting upon its own merits, although sufficiently strong in that attitude to the debate. It is a rebellion against a tyranny, and has its justification in its injuries. Free trade antagonizes protective duties as burdens, pure and simple, imposed upon consumption. If import duties are not truly taxes, they must rest on other grounds, and must be judged by their difference of working principles and objects. So much is fairly conceded to the assumption, provided the assumption be supported by fact.

T. First: Protective charges upon foreign imports avow a purpose totally different from taxation.

Secondly: They have a totally different rule of assessment.

Thirdly: They have no respect, and bear no relation whatever, to the value of their subjects, and in this respect differ world-wide from the rule of taxation for the purpose of government revenues, and for this reason *ad valorem* assessments, beside their other criminalities, are utterly alien to the protective principle.

Fourthly: They have no arbitrary or constant rates of assessment. Being strictly and only remedial in their use, they adapt themselves to their own necessities; and although they afford, or may afford, incidental service to the national revenue, this is not their design, and they are, therefore, not regulated by the requirements of national income and expenditure.

In all these points of character and purpose they differ from government taxes, which, distinctively, are contributions levied

upon persons and property for the necessary supply of the nation's expenses.

Blackstone, who scarcely ever fails in logical definitions, or descriptions of things by their kind and difference from other things, and as carefully excludes all that does not belong to them, says : "Tax is a rate or sum of money assessed on the person or property of a citizen by government for the use of the State, and is usually levied upon the property of citizens according to their income or the value of their estates." Here we have the nature and purpose, and thence the governing rules of taxation.

The grand difference of protection proper is given by Webster as "defence, shelter from evil, preservation from loss, injury, or annoyance."

Protective duties may result in revenue to the government, or they may, by prohibitive rates, yield nothing to it.

D. Imposts upon foreign merchandise are usually commended for the revenue which they yield ; and it is claimed for them that, in this way, they exempt from burdens personal and real property to the amount which they yield for the general service. Customs, in our country, have been more than nine-tenths of the national income. If they are not taxes in character and method of assessment, they certainly fall upon the consumers of imports exactly as internal excises do.

T. Must I ask you to notice that very different agents, under very different laws of object and operation, may have effects in some, or most, or all respects, alike. A storm of wind and wave destroys a ship ; so does a cannonade. Are they, therefore, identical in theory and in operation ?

Let me try to impress differences, under such resemblances as you suggest. Protection aims at, and addresses all its methods and measures to the defence of the industries employed in the domestic production of commodities, and has nothing to do with their market value. It confronts the importer with its purpose to secure the interests of domestic capital and labor, by equalizing their opportunities against all odds ; and it lays on any amount of duty that will do that. As an illustrative example : the Prussian Zollverein, in its best and most effective form, was purely protective. Originally it charged cotton goods, without any regard to

quality, thirty-two dollars and twenty-five cents upon every hundred weight of the fabrics imported. The effect of this *specific* duty was, that coarse shirting paid the equivalent of 90 per cent. upon its invoice value or price; superior shirting paid only $32\frac{1}{2}$ per cent.; and fine printed cottons were admitted at $8\frac{3}{4}$ per cent. (specifics reduced to ad valorem). The Zollverein, or customs union, of above thirty German States, intended protection and not revenue from foreign trade in the goods which competed with their own industries. They intended to foster their own manufactures in their infancy. Their policy had no regard to the resulting revenue. It did not tax those goods which its capital and labor were not yet able to produce. It defended only those of which the people were then capable. It put no greater burden upon the finest and costliest than something like mere port-charges. On the same principle, and guided by the same purpose, it charged all kinds of cutlery at a uniform rate by the pound; letting in pen-knives, razors, gold epaulettes, and along with them, china wares; at a merely nominal rate, because they did not then (in the year 1818) compete with any home production; and they laid their whole protective stress upon such rivals as hatchets, axes, and the coarser metallic wares, which the German people, under the shelter of equalizing duties, were able to make for themselves. You see there is nothing of the law of taxation in charging a razor and a plow-share or a crow-bar at the same rate of import duty per pound.

I wish that I could make a free-trader understand this. The results of the Prussian system took care of its intention. Without any change in its rates, as the people advanced in skill and capability, they found the unchanged rates at each successive stage sufficiently protective, though constantly declining in ratio to values, until, in the end, German cutlery attained such rank in quality and price that it obtained a remunerative market at home and even in England.

So Germany, under an unadulterated protective system, grew out of its infancy in the manufacturing arts to a maturity which has made an empire out of the previously existing fragments of nationalities. And, let me add, that every people in Europe which has in modern times emerged from helplessness into the

rank of a power among the nations, has a like history of its ways and means of acquiring industrial and political independence.

D. Is that Prussian system an example of righteousness which thus refused to graduate the burdens which it imposed to the ability of the consumers, making no distinction between the common necessities of life and the luxuries of the rich, but rather diminishing duties in inverse proportion to ability to bear them?

T. Be careful of the distinction between internal taxes and duties upon foreign imports. Of necessity as well as in equity internal taxes are charged upon property in the ratio of assessed values; but imposts having a totally different aim are levied under a totally different rule.

The Zollverein had nothing of the nature of sumptuary laws in its provisions. It drew no line of partition between luxuries and common necessities. It did not, by adding to the cost of finery, put it still further out of the reach of the poor (for I believe the word luxury is applied to all things that are comparatively costly, and to no others). Those which are lawful indulgences and refining in their use, are not persecuted by the policy that is simply and justly protective of domestic industry. That discrimination among classes belongs to your "tariff for revenue only," which taxes its subjects according to their market value.

D. You are admitting that custom-house duties have no moral ends in view, and have no respect to the ability of taxables.

T. The proper regulation of imports in foreign trade has its own ends to promote, and does not encumber itself with a lien of issues. It leaves sanitary laws, police regulations, war and peace, and ecclesiastical functions, in the hands appointed to administer them; and it never permits their interference with its economical offices. In homely phrase, it minds its own business, and leaves every other function of society to the undisturbed performance of its special duty. For an example of its avoidance of trespass upon any other province than its own, it would never be guilty of putting tea and coffee into the aristocratic rank of luxuries by charging, say 5 cents import duty on a pound of the one, and 60 cents upon the best quality of the other, after the free trade notion of a tariff for revenue. In the day of its strength and at the first moment of its great victory over the unwisdom of that disastrous doctrine,

our tariff of 1832 put coffee and tea into its free list, and it has always followed that rule when disembarassed of the necessity of regarding revenue in the exigencies of the national necessities.

D. Are you not claiming a consequence of free trade as a property of protection, by citing such instances as have at any time been liberated from import duties?

T. How slow you are to understand the spirit as well as the body of protection, or, how inadequate has been my explanation of it! My dear sir, if import duties were taxes, a free list in its provisions would be a solecism. Must I so often remind you that it is a defence of native industry, and nothing else? The free admission of goods which in no wise displaces home labor, but rather promotes its prosperity, is one of its controlling principles. It is, therefore, consonant with and obligatory upon it, to guard the home market. Thus, where it protects the farmer's products from the rivalry of Canada, it exempts from duty all foreign wool which is coarser than our climate yields. This, at least, is required by its principles and policy.

D. Please explain this seeming incongruity.

T. There is a vast quantity and value of blanketing and cheap woollen clothing in demand. Our manufactories cannot supply these low-priced, but excellent stuffs, from our own wool, which is worth from 40 to 60 cents per pound; but by mixtures with the South American wool, costing about 7 cents, they can be made and marketed for home consumption. Our own wool never goes across the ocean in quantity sufficient to pay for even the playing cards which we import. It has, for reasons which I cannot stop to explain, no foreign market approaching our capability of production. England admits the low-priced raw materials free of duty, and by underselling us, shuts up our production, closes the factories depending upon it, and our sheep go to the shambles. This tax upon non-competing wools makes mutton cheap, and our own wool too cheap to bear cultivation.

P. It seems to me that the true system of protection thus presented is full of scientific harmonies. Its apparent complexities are systematically reconcilable. Do you claim for it, as we have had it, the merit of giving us the industrial eminence we have reached?

D. I should not be surprised if he claimed for the darling system, all our triumphs in war and peace, the vast expansion of our territory, and income of our population, and many another wondrous achievement that certainly has had some other causes of success in the growth of national wealth and power.

T. Then I shall not surprise, however much I may astonish you, when I say that the nursing of a nation's infancy, and the care of a wise guardianship of its material interests are quite as essential to its health and growth as are its constitutional principles of political government. We know that no civilized people, within the range of authentic history, has risen to independence, wealth, and power, that have neglected the protection of their industries with a care beyond their common international concerns; and we know that since the inauguration of the chemical and mechanical auxiliaries in industrial production, no nation that held a high rank, two or three hundred years ago, and has abandoned its manufacturing interests to hap-hazard, or to free trade, has been able to maintain equality with those to whom it has surrendered the management of its labor and productive capabilities.

D. Does not the still more modern abandonment of the protective policy, in the more advanced countries, show that wealth and prosperity, in all their forms, go better unsupported and uncumbered by the crutches of protection; in a word, that "time has made the ancient rule uncouth," and that "we cannot open the future's portal with the past's blood-rusted key"?

T. I think that only the instrumentalities have been accommodated to the new-time requirements, or that their spirit has been transmigrated into more fitting organisms, as their older-time specially adapted forms died heroically in the arms of victory. Defences are not to be kept armed and equipped when they have conquered peace. They must be maintained for their exigent uses only.

It is not becoming in a convalescent to depreciate the splints and bandages because they encumbered, while they supported, his broken limb through the healing process. They are obsolete now to him; but it is monstrous of him to declare that the bone healed itself in spite of the remedial appliances. England, finding protection by her present contemporaries an obstacle to her industrial

and commercial domination of the outside world, apologizes for the founders of her prosperity, and calls their wisdom and providence a mistake. She made herself the workshop of the world and mistress of the seas by impositions and prohibitions, enforced by penalties, ruthless and frightful; but now she endeavors to hold the vantage ground so gained by breaking down the like defences of the nations against her aggressions, actual and possible.

D. As against injurious foreign competition your doctrine has some force. But in practice it is an unwarrantable interference with the private right of self-government, and free selection and pursuit of business avocations. It assumes to decide the people's industrial destinies without consulting their preferences of taste and capability. It, in effect, says to fifty millions of people in the United States, "You don't understand your own interests as well, and are not as fit to manage your own private business, as a couple of hundred congressmen are."

T. Free trade seems to deal in nothing but abstractions. It takes inferences for its data, and does all its reasonings upon the postulates of its own manufacture; like John Stuart Mill's notion of political economy, "it is founded upon abstractions, not upon facts;" and, thus having the start of beginning at the outpost, it compels the antagonist to run backwards in the race which it challenges.

We had to meet the class legislation cry as one of our side issues; then inequality of taxation as another; and now we are put upon another, by the interjection that protection of the common interests of the community must necessarily interfere with personal liberty in the choice of industrial pursuits.

There is a conspicuous fallacy in the assumption that every man is so wise that he needs no guardianship, which I do not expect you to press upon me. Moreover, it is so impertinent in this debate that it has nothing of its intended consequence even if it were admitted. It is a shot entirely wide of the mark.

Protection is so far from tending to limit, confine, or control self-government in the choice of business avocations that its only aim and intention is to secure the conditions and opportunity of a free, wide range of choice, large enough in its provisions for the liberty of every taste and capability. It is best described as a

system of free domestic commerce, in opposition to the free foreign trade, which would cripple it.

D. Would you controvert that battle-cry of freedom, "The world is governed too much;" and its corroboration and exponent, "It is astonishing with how little wisdom the world is governed"?

T. It is more astonishing that such empty generalities should become the fundamental principles of theory concerning practical affairs. If I must argue the necessity, from the universality of government intervention in private affairs, I could adduce such instances as these: Legislation in regard to corporations, banks, brokers, auctioneers, canals, railways, artificial roads, mechanics' liens, apprenticeships, market inspections, patent rights, copyrights, hours of labor, cruelty to children, licenses, enabling and restraining, forms of conveyances of property, coinage, weights and measures, insolvency, intestacy, legal tender in payment of debts, partnerships, trusts, poor laws, school laws, election laws, marriage, sanitary laws, police laws, militia laws, post-offices, infancy and maturity of age, damages in compensation for loss of life or limb, the law of common carriers, with a long train of other interferences in private business affairs too numerous to detail. In all of which the incompetence of individual wisdom or power invites government regulation and protection, limited only by the line where individual capability, convenience, and security mark the proper division of the public from the private functions of society life.

D. I need go no further in reply to such a string of refractory instances as you have produced, than that there are exceptions to every rule.

T. Which, if true, forbids the application of the rule to the exceptions; especially when they are more numerous than the examples; for, exceptions instead of supporting the rule directly contradict and flatly refuse submission to it. Besides, let me remind you that the proverb which you quote is only the dodge of a manifest untruth, at best. It means "I am right except when I am wrong."

P. Shall we return now to the direct development of the protective theory—its vindication from the charge of limiting its intended benefits to its first-hand beneficiaries—the employers and

employees, with their immediate dependants, to whom it grants its favors?

D. If I understand the argument, the escape from the charge of monopoly and inequality at the expense and to the injury of all outside of the privileged parties, is to be found in the ultimate distribution of its favoritism or its advantages, to the whole community without partiality.

T. Nothing less or other than a fair and determinate tendency to universality of beneficence can justify any aid given through any special channel. It must not even ask the indulgence of that invidious maxim—"the greatest good to the greatest number," which, by the way, authorizes the oppression of the minority for the undue advantages of the majority.

D. I confess that I did not expect such a downright radicalism of doctrine in so bald a system of conservatism as you propose to defend.

T. A true system of social science, in all its branches, repudiates the poetic heresy of "educing from partial evil, universal good," as indignantly as St. Paul denounces "the doing of evil that good may come."

We submit our policy to judgment under requirements so rigid as these; and intending none of the dodges of a compromise democracy, we ask no favors from its hermaphrodite philosophy, made up of the most malignant elements of prerogative mixed with the silliest aphorisms of demagoguery; which I take to be a true analysis of free-trade. There is a generality for you; for I owe you one.

D. I think that is overmuch to say of a doctrine held and avouched by the most advanced minds of the time.

T. The most advanced! Say the most protruded, and illustrate the simile by the highest heads of the tallest stalks of a grain-field, overtopping those which have something in them which imposes an attitude more modest.

D. Poetry, imagery, borrowing all its strength of argument from sampler analogies!

T. Truth may in its earnestness and fervor rise to the tone of verse without any compliment except to the heart of the utterer. I have not assailed the motives or the morals of the enemy; be-

cause I know that many of them are *innocents*. I have better weapons for offence and defence than opprobrious epithets. That is the ammunition of the other party.

D. Do they skirmish with poisoned shot? I was not aware of it.

T. Sturdy beggars, robbers, monopolists, money lords, conspirators, are among the terms common to the doctrinaires of the party; to which, by way of climax, protectionists are plainly told that they are fools, dotards, and bigots, as blind to their own interests as they are reckless of the rights of others; with all that is odious in the masterdom of capital, all that is wicked in speculation, and cowardly and cruel in riding rough-shod over the barefoot crowd in the thoroughfare of life's journey. Have you not noticed anything of this?

D. Well, yes. In the feeblar newspaper editorials, and in stump speeches of the incapables; but can you find one instance of the offence among those for whom the discipleship is justly responsible?

T. One instance, only one! I take the readiest at hand, and the easiest of access. William Chambers, in "a manual prepared for the use of schoolmasters, tutors, governesses, and parents," entitled, "Historical and Miscellaneous Questions with Answers," sums up his catechism for the innocents thus: "In plain language, protection in trade is little better than public robbery." Will that do for one instance? You may have another: the grandson of John Quincy Adams ventures boldly upon the same charge in the like terms, although his grand ancestor is thereby laid open to the accusation! In fact, the retailers of the creed in our own country, generally, without respect to persons or opinions, though they be represented by such persons as Washington, Jefferson, Madison, and Hamilton, use such terms of obloquy as freely and as unreservedly, as if they were addressing themselves to a street mob, "for the greatest good of the greatest number" of voters, and as careless of the laws of logic which rule the greatest thinkers, and at the same time, gentlemen entitled to respect.

D. Faults in the advocacy of principles in issue! But the question is, in essence, the reserved rights and liberty of the

people, which need definition and defence. These are the sources of public danger. It is the domination of the persons in power, in the administration of the common interests, that is commonly in the aggressive. All the reformations of history, in Church and State, have been branded as rebellious, simply because they are the resistance of the wronged many to the usurpations of the few. "Eternal vigilance is the price of freedom;" and the value of liberty, after your notion of the value of commodities, is the cost of its production and constant reproduction and maintenance. It is the invasion of individual liberty by obstructive interference; it is the watchful and jealous prohibition of executive intrusion upon private rights, which has consecrated the maxim, "that government is best which governs least."

T. Another generality, tipped with an antithesis, as lightning rods are defended from the melting fire which they invite by infusible points,—conductors of the clouds they point at.

But political government has two aspects, each essential to the other—control and protection. A social deism and a social providence, when, in any worthy sense, it is a human copy of the Divine; that, to the utmost possibility of its power, it may do His will on earth as it is done in heaven, "causing its sun to rise on the evil and on the good, and sending its rain upon the just and on the unjust." The interferences of a rule which respects liberty, while it provides for and defends its exercise.

If democracy be not political atheism, it must accept this union of supervision and sustentation; that is, if it be not the pure democracy which Jefferson "calls the devil's own government."

D. Democracy is not lawlessness. It authorizes government; but it insists that it shall be self-government; that not a part shall govern the whole, but that the whole shall govern the parts; restraining, maintaining, and protecting them equitably, wisely, and beneficially. Otherwise it would be only a creed of rebellion, and not a policy of civil government.

T. But it has been generally so busy pulling down Babylon that, by force of habit and the impulse of its dogmas, it gives less attention to building up Jerusalem. It carries its war-cries into the dominion of peace. Its instincts are always prohibitory. Ever crying, "Thou shalt not, thou shalt not," to the constituted

authorities, hardly conceding any force to "thou mayest," "thou shouldst." It demands abdication, instead of the performance of any duty, except repeal. It requires the administration to cease to do evil, but does not insist upon learning to do well. The motto which you quote, practically rendered, means,—Do next to nothing; and nothing at all, by the same rule, would be still better.

To meet and avert the mischiefs of this insane individualism, let us look at the requirements, as well as at the limitations, which the government of a commonwealth imposes upon its functionaries. The diversity of capability, taste, talents, aims, and objects of the multitude whose fortunes are at stake is so great, so multitudinous that, as hardly any two people are in anything alike, so their fitting avocations are infinitely diversified.

Our last census (of 1870) gives a list of 338 occupations of the people known by distinctive names. The Superintendent notices the obvious deficiency by saying that it is not possible for the enumerators to fill two or three thousand subdivisions with appropriate entries; and he is fully aware that a large number of those that are designated include a considerable variety of businesses under a single description; and, to the unlimited conglomeration under the titles given, we must add a multitude of others not given, for if seven or eight workmen are employed in making a pin, and perhaps a thousand in the production of a daily newspaper, we may as well say of most of the occupations under a single name, *multum in parvo*, and so give up any attempt at estimation.

D. This proposition does not need amplification. To what does it tend?

T. It tends to teach and enjoin a commensurate diversification of employments, adequate in adapted variety to the latent productive powers of the whole people.

P. There it is in a nutshell. But the idea is so vast that the specifications which it embraces would help to the better apprehension of it.

T. A largely comprehensive assortment of labor requirements by one class of the people, dependent on their industries, offers itself, importunate for consideration.

Without a very great variety of productive occupation, one-half

of the population—our women—must be put into the “supported class,” or driven into unsuited drudgery. The modern system of manufacturing has taken from the household the spinning-wheel, the hand-loom, and the knitting-needle, in money-earning service.

In 1791, Alexander Hamilton, then Secretary of the Treasury, officially reported: “A vast scene of household manufactures,” which, not then being displaced by steam and machinery, as they since have been, he says, “supplied in different districts two-thirds, three-fourths, and even four-fifths of all the clothing of the inhabitants.” Of textile fabrics he says: “In several kinds the domestic fabrication was not only sufficient for the families themselves, but for sale, and to such extent in some cases that they were exported to foreign countries.”

This field of self-supporting work, which was in the hands of our women a century ago, now that their number has increased twelve times, is in that proportion necessary to them, and to the country by them, if by any means it may be secured to them.

P. Hamilton’s “vast field of female labor” was cultivated under cover of the domestic roof. Is the sex capable of the change to the public workshop which your preamble suggests?

T. The *sphere* assigned them by the dandies of propriety, happens to be no sphere at all in the profitable system of public service. I would give them at least a hemisphere for their necessary revolutions in the industrial system, and leave to themselves to take care of the proprieties of their agency. That is their business. It is ours to provide, at least not hinder, their opportunities. The barbarous chivalry of a former age has, in the reign of honest industry and equal rights, rotted out of our own sex, and it behooves us, changing with the change, to release the other sex from its brutalities, that is, its enslaving and debasing *courtesy*. By the way, do not the *tournaments* of our very rural gentry mock the old-time parades, very much as the mimicry of “the pope of all fools” travestied the glories of another decaying dominion, and in the same way signalize a reformation?

D. I wish I had not obtruded an interruption so unnecessary to you, and opened on your side a radical wrangle with the conservatism that has hard work to maintain the social peace.

P. There is fun in a conflagration, for boys and firemen.

General Grant said a good thing when he said "let us have peace."

T. I have the boy's justification: "he struck first, besides, I run with the engine, and a thick smoke as much as a bright fire demands my attention." Laying aside my fire-proofs, I resume:

Under the great change in the modern apparatus in production of commodities which require skill, the effective provision made for women appears thus in the census of the year 1850:—

The wages of women in factories was five-ninths of those of men, in the like employments; and they numbered $23\frac{1}{2}$ of the hundred hands employed, or about equal to one-fourth of the male operatives. In 1860 the women engaged in textile manufactures were 54 per cent., or more than half of the employees. Their wages then amounted to $33\frac{1}{2}$ millions of dollars in the year, and their number was 212,383. Twenty years have transpired since, and their employments have been greatly increased in number and variety. I do not give these statistics as the true measure of their contributions to the mass of the country's products, nor as the measure of their need of gainful occupations. It may serve to indicate their adaptation to the existing methods of the industries required by the times; because it suggests the importance of its opportunities to them.

The factories in which they were engaged were, in 1860, such as these: Paper-boxes, carpets, clothing, cotton manufacturies, hats and caps, hosiery, millinery and dress-making, straw goods, umbrellas and parasols, woollen goods, boots and shoes, cigars, snuff and tobacco. Besides these occupations, above 200,000 women were in service in retail merchandising.

Mark; all the productive employments mentioned are those of commodities in which foreign manufacturers are in active competition with us in our home markets. Let down the bars, and these women will be driven from this vast field, which they have proved themselves capable of occupying, and from all its prospective enlargement besides.

If I was under the political helplessness of womanhood, I would entreat my governing guardian to save to my sex the labor that is our only independent property in the social partnership; and as I am a man, I own the righteousness of the claim. The

idleness of women is their imbecility and their perdition. It is bondage of soul and body—a curse as heavy as intemperance upon their brother men, and quite as mean and worthless. In large part it is enforced upon them. In the proportion that their social status and relations are ameliorated, their personal independence and its proper dignities are secured.

D. Would you grant them the right of suffrage?

T. I would grant them nothing, but would put them in the way of earning and achieving anything and everything that they can by their own proper force acquire. Simple emancipation is not a boon, nor in itself a beneficence. Enfranchisement, without the conditions which make it available, is only turning its subjects loose “to prey on fortune,” or become its prey. “Unbind the heavy burdens; let the oppressed go free” of conventional restrictions, to find their place and to qualify themselves for the healthy exercise of whatever there is in them.

P. The rule of reserving and securing to all the opportunity of using their liberty of choice and the fitness of means to best ends, extends to the claims of all varieties and degrees of capability, and must necessarily rule all commerce, foreign and domestic. Is not that cosmopolitanism in principle?

T. In a cosmopolitan government it would be. But the duties and the care of a national government are bounded by the extent and limits of its domain—the duty by the power entrusted—just as, in the family, the duty is commensurate with the authority committed to the executive. A missionary of a gospel of glad tidings to *all* men, who neglects his own household, thins his philanthropy by its expansion; and the nation that devolves its proper care of the interests committed to its governance leaves the stranger to control them to his own advantage. The principle of *Laissez faire*, in the exchanges of industry, when it says, “Do as you please,” subjects its disciples to do as anybody else pleases. Ask a loafer to pledge himself to sobriety; he answers: “I can take care of myself; I know what is best for me; and I won’t allow anybody else to govern or protect me.” After his next spree, when he is sick of it, his apology is: “I happened to meet Tom, and Dick, and Harry, and you know I couldn’t refuse them. So I took a little too much.”

The nation that will not protect itself, will find Tom, Dick and Harry take its government into their own hands ; but then, to be sure, it has asserted its good fellowship with all the world. The consequences are accidental, and accidents will happen in the best of families, especially in those that are misgoverned or not governed at all, as to the matters in which they are most exposed to mischief.

P. I think that you have not yet disposed of the impeachment that is implied in universal philanthropy or cosmopolitanism against nationalism in trade, or to the objections urged by free trade as it operates upon the welfare of the nations which adopt it, or as its adoption is urged by its partisans upon all countries alike.

T. A universal principle rules international trade, for nothing in the course of nature is lawless ; but no particular policy is adapted to the diverse conditions of its subjects.

Rational and logical protection is patriotic, which is more compact and effective than a thinly expanded and impracticable communism, which, for the sake of being everywhere, resides nowhere, and in its effort to do everything, does nothing. A system of national protection, well devised and adapted, proposes the benefit of the whole world by taking care of its parts ; and is not otherwise cosmopolitan than as the prosperity of every particular people is a necessary constituent of the general welfare, and as the good of each is reflected upon every other nationality, in the ratio of their several aptitudes. This is just as true a directory of the relations and influences of the members of any community. Both among individual men and nations, a wise philanthropy graduates its beneficence in direct rays on the nearest interests, and diffuses its force as the sun gives his heat and light collaterally to the latitudes which lie more remote from the ecliptic. A cosmopolitan antedates the millennium, and theoretically lugs the equities of a perfect order into an ungoverned disorder of affairs. To effect his levelness of dealing with the inequalities which he must encounter, he expects the mountains to sink and the valleys to rise, so that a wrinkle of gradation or difference shall not obstruct the smooth movement of his policy. In the existing condition of things, he must repress the energy of the highest and best

to the weakness and incapacity of the lowest ; as drunken Indians are said to handicap their fleetest ponies, that the slow-goers may be able to make an even race.

Unfortunately for his aim, his guiding principle, *laissez faire*, allows any and every disproportion of means and power all their existing supremacy in the contest, and thus his basis principle of equal right is at war with his professed purpose.

The protective system, on the contrary, addresses itself to the conditions which it is concerned with, and to the work within the scope of its powers.

A genius who had just enough practical sense to go indoors when it rained, applied for a patent intended to protect cornfields from the depredations of squirrels. He had observed that the outside rows were most exposed to spoliation. His remedy was to have no outside rows—to put them all inside. That fine fellow had a perfect cosmopolitan cornfield in his scheme. By keeping all the rows equally near the centre he could give them all an even chance and an equal care.

D. Unwilling to struggle for the last word in a dispute upon abstractions, I should like to recall you to a difficulty on your side of the question. You are concerned to show how special favor to one class of people distributes its benefits ratably upon other than their immediate beneficiaries. Your protective policy mainly intends the encouragement of manufactures. This is *prima facie* partiality, and demands explanation and justification.

T. I will give you General Jackson's answer to your question. He was not a visionary, a doctrinaire, or a root-and-branch world-mender ; moreover, he was one of your party in its better days. In his first message to Congress, he avows himself a protectionist and quotes Washington, Jefferson, Madison, and Monroe as his exemplars and guarantees. You will respect the authorities in this list. In the General's letter, addressed to Dr. Colman, in 1824, pending the discussion of the customs tariff of that year, he said that if six hundred thousand persons could be withdrawn from agriculture, its products would find a good-paying home market, by converting its over-crowded producers into consumers, with the advantage of improving the gains of the better adjusted number of cultivators of the soil, and the profitable employment of that

multitude which are kept idle by the competition of foreign imports, and thus build up our own skilled industries ; securing, at once, supplies in war, and prosperity in peace.

The protection needed by our manufactures was in his judgment the only practicable protection to the farming interests. In circumstances which always exist, the fostering of one class of industrial pursuits must operate to the advantage of every other. At the date of this letter, according to the author, "American farmers had no market either at home or abroad," and for this reason, a sound rectification of supply and demand could only be effected by a due diversification of the home industries. It is true that a famine in Europe makes an extraordinary demand for our provisions, while the occasion holds. But it is a foreign market subject to uncontrollable and incalculable contingencies. Sometimes in the past, seventy-five per cent. of imported wheat into Great Britain is American ; sometimes, within a year of this demand, our share of the supply has fallen to twelve per cent. Can a steady business, depending for its preparation a year in anticipation of such uncertainty, bear the fluctuations of demands and of prices, to which it is exposed ? Encouraged by the prospects of this season, it gorges the market of the next, and has all the debts, born of flush times, to meet when the hard times come.

D. This trade has turned the balance of international trade, for two or three years, steadily in our favor.

T. That is the proper fruit of free trade which our British cousins are now reaping. To maintain their superiority in manufactures, they have broken down their agriculture and oppressed their labor, and now they are suffering the effects of a dreadfully broken balance of productive power. They have not maintained a due diversification and healthy inter-dependence of their wealth-creating resources. An immense emigration of their people to America and Australia has for some time partially abated the mischiefs of their system ; but now, they are suffering the beginning of the end, which must follow their violation of the laws of nature and of justice. In the hereafter they must of necessity take our surplus of food at such prices as they shall be able to pay, and our farmers will have to choose between burning their corn for fuel and exporting it to their only European customer ; for all

the other nations of the Eastern Continent are not only self-supplying, but are our rivals in the British market for the sale of their surplus. The necessary result is coming. General Grant, in 1869, concurs with General Jackson, after a lapse of forty-five years of further experience. He says: "The extension of railroads in Europe and the East is bringing into competition with our agricultural products, like products of other countries." And justly infers that the home market is the only reliable and permanent one of our farmers.

P. I have seen it stated that three-fourths of the people of the more advanced nations, industrious and idle, are the customers of the manufacturing class, and that one-fourth may be advantageously employed in what is called the converting industries, to distinguish them from the producers of raw materials. Is that a fitting division of the industrial functions of a community?

T. I cannot answer. It is quite impossible to form an estimate from the data at command. The average value of the raw material employed in manufacturing establishments, in the year 1860, is given at $53\frac{1}{3}$ per cent. of the value of the products; but the census reports do not nearly embrace all the arts of conversion, and their supplies of materials. I guess that it would not be far wrong to estimate the respective values of their products at an equality.

In Great Britain (Ireland excluded) the proportion is supposed to be three of the class of manufacturers, exchangers, transporters, and professional people, to one of the agriculturists and other producers of raw material. The relative numbers are probably between those of Great Britain and the United States. This estimate is supported by the fact that England, Scotland, and Wales cannot find an answering demand for their manufactures at home, but are dependent upon foreign trade for the larger part of their artificial products, and, of necessity, are concerned to keep the communities with which they must trade, in the ratio of three to one as consumers, to balance their three to one of producers. Would not a well-balanced equality or relation of the respective forces of these two great classes make a better division of their mutual interests than to have one of the scales hung in suspense by the other in another hemisphere?

D. You would find protection everywhere—in all trade, and in the money medium, as well.

P. What a cross-reading this idea forces upon the British brag

“ Her march is o’er the mountain wave,

Her home is on the deep.”

If the mutualities of her home industries were better equipoised, she would not need to disturb their balances everywhere else. This view of the situation throws an illustrative light upon all the past of her commercial history, and upon the future of her fortunes. She is on a see-saw with the nations, the outside barbarians, and she is up only when they are down. It was best to put her portraiture into poetry. Why not call her usurpation of everybody’s labor, a polytechnic metropolis of trade? Adam Smith, whom she still worships, rudely called her “a nation of shop-keepers,” striving to make herself “the workshop of the world.” Daniel Webster furnishes her with another euphuism—“Her morning drum-beat follows the sun round the globe.” That is better than to describe her mercantile marine as a host of drummers for an island huckster.

D. Softly, my boy. Don’t forget that we have a common origin, a common language, and a common destiny.

P. The partnership is well enough, so far as it is even-handed, but I don’t like a circular hunt in which I must take the rôle of the hare, and my venerable step-mother personates the hound.

T. A due balance in the industries of a people, as respects others, and the harmony upon which the welfare of every individual depends, is a clear justification of the governmental intervention by which such ends are to be attained. The ten thousand differences of ability, taste, and fitness for the corresponding ten thousand varieties of supplies demanded, must be provided for, that every man’s place may be kept open for him. I need not amplify this proposition, but I must ask you to make an effort to grasp the vast variety of occupations required to evoke the whole wealth of talent, labor, and enterprise latent in such a community as ours. Natural laws do not bring the water of the rivers to every man’s door in permanent and sufficient abundance. It is the lawful business and the imperative duty of the communal

executive to gather the needed supply into convenient reservoirs ; to lay the mains and open the pipes that shall keep the hydrants copiously supplied, and in a force that shall accommodate every household from attic to basement ; to see that the fountain is kept flowing full, and then trust the distribution according to every need. The common law of gravitation will not hinder the waters, heaped up in special places, from finding their level. There may be some wantonness of waste in the overflow, but there can be no necessary mischievousness in such accidental misappropriation, for "they that gather much in the end will have nothing over ; and he that gathers little has no lack" (Exodus xvi. 15), if the fountain be a full one.

D. If the provision came like manna from heaven, it would be surer of an equitable appropriation than when it is supplied from the purse of the nation, or by exactions from the people.

T. We do not make ourselves responsible for a miraculous allotment of the benefits. We only supply the means. The distribution depends upon the parties interested. Protection makes its benefits equable, probable, and even certain to all who put themselves within the purview of its provisions. What more can legislation, or even Providence, do for men as we find them ?

D. In dogma and in deduction, in dialectics and dispute, you seem so well assured that I must put your pet policy to the *experimentum crucis* of its practical results. What does its history say for it in experience ; and what, especially, do the various forms and long trial among ourselves report of its merits ?

T. We are most familiar with the story of its operation, and most likely to be thorough in our examination of the question in English and American experience.

D. You have given us your anti-British bias in tidbits of allusion, interspersed, as opportunity served, throughout these conversations, with criticisms, which are subject to some discount for prejudice in opposition to it, as well as for enthusiasm for your own doctrines.

T. I am not indifferent to the issues of inquiries which involve the interests of society. I am not of the free-and-easy sort of wranglers who hold with the old Greek dialecticians, that there is no argument so good but an equally good one can be brought

against it. Nor have I that loaferish indifference to facts and doctrines that naturally grows out of *laissez faire, laissez passer*. Believing that truths are dynamics in the conduct of economic and social life, I wait for the verdict of guilty or not guilty, when a policy of government is on its trial, with a sentence to follow. It is a do-nothing policy that yawns over the tediousness of evidence, and listlessly mumbles, "Oh! what is truth?" Not as a question, but as a dodge and an escape from investigation and earnest decision. I am happy to say that I have prepossessions, and want to believe something, and obey it. Help me to hold my hope inservient to faith, under the rule of charity.

D. As you admit me as a helper, I will not be an obstructive, but will try, as I may be able, to serve only as a corrective.

T. Bear with me while I run over the stepping-stones in the current course of British protection:—

England began her system of restriction and prohibition of foreign trade in the year 1338, under Edward III. (the British Justinian), and she persisted in it systematically and resolutely for more than five centuries—till 1846. The statutes of Parliament and the ordinances of the Privy Councils, throughout this long *infancy* of her manufactures, would fill a big octavo volume.

In 1782 the duty levied upon foreign bar-iron was £2.16.2 (\$13.46) per ton. In 1819 it was raised to £6.10.0 (\$31.60). In 1826 it was reduced to £1.10.0 (\$7.30). In these 44 years her iron, under protection, had attained the mastery over all competitors, and the duty of \$7.30 was retained only for more abundant caution. The prices of iron the year before this reduction (in 1825) were, in France, £26.10.0; in Belgium and Germany, £16.14.0; in Sweden, £13.13.0; in England, at Cardiff, £10.00.0. Verily, it was quite safe to take off the splints and bandages, and discard the crutches when the limb through their support had gathered such strength for the race against all contestants for the prize.

Passing over the period of her savage penalties upon the importation of woollen fabrics, by forfeitures, imprisonment and maiming (for which see Blackstone, 4th volume, title Owling), and the sumptuary laws, the crushing restraints upon the industries of her colonies, and the navigation laws which closed like a steel-trap

upon all maritime competition, with "more of horrible and awful, which even to name would be unlawful," and all alike intended for the defence of her own domestic manufactures, look at her customs duties and prohibitions in full force so lately as after our Declaration of Independence. In 1787, silks prohibited, woollens prohibited; cotton fabrics charged from 44 to 60 per cent.; glass 60 per cent. In 1819, silks still prohibited; glass 80 per cent. Up to the very last days of her established supremacy, she charged on silks 25 to 40 per cent.; on woollens 15 to 20, and on cottons 10 to 20 per cent. Until about 1830 she was not safe against the rivalry of the continent in the production of these goods.

In general and in particulars this is true of her policy: she never repealed a protective duty by act of Parliament until long after it had been effectually repealed by her acquired success in cheapening her products to the extent that she could undersell the like goods in the world's market, and so bar them out of her own; and she has not to this day given up the defence of her home market against the products of other nations—of this more hereafter.

D. Protection has an American history of something approaching a century, which one would think ought to have matured the domestic industries quite as much as five centuries of the earlier struggle in which England was engaged with India, in the matter of cottons, with Persia in the finer woollens, and with France, which for the later thirty years of the strife, maintained, according to McCulloch, a steady defence, amounting in effect to absolute prohibition of all competing imports.

T. It is now but 90 years (1790 to 1880) since the Federal Union entered upon its system of protection, and that history is a strange, eventful, and instructive one. I must be allowed to trace it briefly, touching only its epochal points.

From the commencement of the French Revolution, say in 1793, to the year 1815—22 years—the wars of western Europe gave us some shelter, by suspending hostilities in our industrial conflict with the trans-Atlantic world; but then we were yet in the woods; we had neither the capital, the labor, nor a sufficient population to avail ourselves, to any great extent, of the chance af-

forded us. The return of peace in Europe, after the fall of Bonaparte, and the liberation of the working people of England, France, and Germany, from their occupation in arms, to industrial employments, changed the situation. Our tariffs, from that of 1816, till that of 1824, or indeed till that of 1828, had served but inadequately for revenue, and not at all for protection. During these 12 years, the manufactures of the United States were undergoing the process of "strangling in the cradle," avowed by Lord Brougham and Joseph Hume; and, as the spirit of British domination was expressed, we "should not be allowed to make so much as a hobnail for ourselves." We had lately been the political dependencies of Great Britain, and the purpose of holding us in the condition of industrial colonization was openly declared and by every possible measure rigidly practised.

The deduction of these two periods from the reign of the protective legislation leaves but 56 years to be accounted for. The fully protective tariff of 1828 had a fair run of four years only, and a compromised extension of about two years more. In that time the whole national debt of two wars of *arms* with the *mother* country had been provided for, and actually extinguished; the Treasury was full to over-flowing, and universal prosperity prevailed among the people. Jeshurun waxed fat, and kicked. The party that regarded protective duties as an oppressive tax upon consumers, maugre the demonstration of its fallacy, thought it was the proper time to kill the goose that laid the golden eggs. Charge protection with these six years of its opportunities, that is from 1828 to 1834. Then, wholly deprived of its efficiency, we had a succession of panics followed by revulsions which lasted till 1842, carrying their mischiefs into the year or two after the restored policy of defence was provided for redress of the evils of an 8 or 9 years rule of free trade. The tariff of 1842 was compelled by both national, and general private, bankruptcy. The Secretary of the Treasury reported to Congress in the year 1841 that a public loan could not be obtained either at home or abroad, and this, but five years after the exchequer had to be relieved of its surplus by the distribution of twenty-eight millions among the several States of the Union. The sheriff's offices of the country now became the clearing houses of private debts. Do you remem-

ber that General Jackson, whose presidency lasted from 1829 to 1837, "left his country happy at home and respected abroad"? that is, the tariff of 1828 did it; and do you remember that Van Buren, handicapped by Clay's compromise tariff, was groaned out of office, in 1840, by the cry of hard times, in the popular belief of Washington's opinion, that distressing scarcity of money in a country in time of peace, exempt from a failure of crops and from pestilences, is the fault of the political administration? The election of that year brought in a change of policy, as with a whirlwind, of which the seed was sown by the Clay compromise of 1833. and had developed its ruinous free-trade effects fully in the great business revulsion of 1837.

By the way, it was not the non-committal Van Buren, but the compromising Clay, the "father of the American system," that this time did the strangling of American manufactures in the cradle. Well, the tariff of 1842, for the public and private benefit that it did, must needs be modified in 1846, so that it afforded only incidental protection, which prepared the way for the amendment of 1857, intended only for revenue, and which eventually failed even of that object, and gave us another turn of the wheel, that went on with its grinding until, in 1860, the Southern rebellion once more forced the restoration of the remedial policy of duties protective in their rates, which had twice before retrieved the fortunes of the people, and amply supplied the national finances. To be liberal, I am willing to add the years from 1842 to 1856 to the debit side of the account of protection; from 1828 to 1836, eight years; and from 1842 to 1856, fourteen years more; making together twenty-two years of the forty-two unjustly chargeable up to 1860.

In this view of the case, what is the force of the sarcasm intended in the phrase, "Our *infant* manufactures?" An infancy exempted from repression during the period that it could only creep, farmed out afterwards for half a dozen years to nurses that had an interest in starving it; and, after another term of twelve or fourteen years, while the stripling was learning to toddle on its unpractised little feet, subjected again to the repressing system four years more. "Faith, it must have been a strapping lad,—a tall fellow of its hands," that could, in the last twenty

years of its fractured life, grow into the robust strength that it has at last attained. If this strong fellow's age were asked he might answer, "About twenty-eight, for I have been twelve years in hospital and poor-house, and as long a convalescent, which, I hope, I shall not be charged with, although I was born fifty-two years ago."

Protection in the United States has not been treated as a guardian of the person and estate of the people. It has only been called on to extricate the country from the disasters inflicted by free trade; and, like a sick nurse, has been as often discharged from service at the earliest hour of the patient's convalescence.

D. Why, in your summary, stop the story at the beginning of the Southern rebellion? Protection has had a fair field and a clear run in the twenty years that have since elapsed.

T. And has worked wonders in the fulfilment of all its promises; and, as usual, is now again threatened with destruction, as a discharge from duty fully and faithfully performed. Like an army that has conquered a peace, it is to be disbanded until the next insurrection of free trade shall compel its re-enlistment. The pernicious notion, that protective duties are taxes, because they always perform the like service to the revenue of the nation, sets the sciolists of statesmanship at the work of repealing them when they have answered that purpose, as if they intended no other!

D. You have, I believe, some respect for public opinion. May not the instability of the system be chargeable to the dissent which, for some inherent fault, it does not conquer? "Experience, which is constantly contradicting theory, is the only test of truth," says Doctor Johnson.

T. A hostile interest, with a guilty knowledge of the heresy, and a guilty purpose in it, has subsidized its propagandists, and acted upon the careless and the ignorant, who have had the power to effect the frequent suspensions of the healthful and rightful rule.

Do you remember that always before our great Southern rebellion, a balance in the governing power of the Union lay in the region which held its labor as a chattel, and never intended that labor for the benefit of the laborer; that, under its system of the industries, its agriculture was exhaustion of the soil; that, not only its fitful prosperity, but its very existence, depended upon

annexation of fresh territory ; that its economic policy aimed, not at fostering the productive power of the nation, but at the cheapening of all things which they could not make, and the cheapening of the men that must make them ?

These, with a host of idlers and factors of the foreign and inimical interest, were ever actively at work, lying in wait, and ready to spring upon the true national policy at its boundary point of prosperous fortunes.

Against such a many-headed throng the system, which is entitled to be called that of the Productive power of the people, as distinguished from that of Mercantile exchange, has ever had to contend. It had to wrestle for life with a light-headed, juggling, bouncing Jack, that recovers itself by the rebound of the force which overturns it.

D. Then free trade has its strength in its breeches, or if you like, in its breeches-pockets.

T. No ; it has its weight there, but its jumpings are entirely due to the relative lightness of its brains and heart.

D. Persiflage apart. You surprised me some time ago by declaring that England still continues to protect, by customs duties upon foreign imports, such of her domestic products as are endangered by competition in her home market. Her official authorities are constantly proclaiming that she has persistently and successfully practised upon the principle of free trade, pure and simple, for the last thirty years. In evidence, the "statistical abstract" of 1875 has this marginal note appended to the tables of their tariff rates then in operation : "The total number of articles, and sub-divisions of articles in the English tariff of import duties was 53 in May, 1875, as compared with 397 in 1859, and 1046 in 1840." Does not this sweeping reduction of imposts sustain the boast they make ?

T. Let us look at the duty-paying articles retained in the schedule covering the 53 articles upon which charges are still exacted, that we may see what of protection lurks in them :

First, I quote the captions of the classes charged with import duties : "Ordinary import duties." In this list are enumerated coffee, cocoa, tea, tobacco, *unmanufactured* ; and a few other articles snatched into the schedule to which they do not belong ;

such as cigars and snuff. On all these, except the last mentioned, she collects what may be called internal taxes or excises at the custom houses. The charges upon the articles proper to this schedule, are *not* protective, because they do not compete with any native product. But, upon wines, in like manner improperly put under the class of "ordinary import duties," because their duties are in fact and effect, as upon manufactures of tobacco, protective of the home industry. Upon the domestic stimulating liquors which they confront in the home market, the tariff levies one shilling, two shillings and six pence, and upwards per gallon, according to the quantity of proof spirits which they contain; that is 12, 30, and 36 cents per gallon, according to strength, upon wines costing in France and Germany, an average of \$1.97, which is about 20 per cent. of defence of their invoice value against them.

Upon tobacco *manufactures* the charge is the difference between 44 cents on the pound of the unmanufactured, and 60 cents upon cigars, and 54 cents upon snuff. The surcharge being plainly a protection of the labor employed in the manufacture.

The second schedule is headed "Import duties to countervail excise duty upon British malt." Under this head beer and ale are charged, according to strength, from 8 shillings (\$1.92) up to 16 shillings (\$3.84) per barrel; and upon malt, \$2.88 upon the quarter, or two bushels; on vinegar, 6 cents per gallon.

The third schedule of this *free trade* tariff list, headed "Import duties to countervail excise duty upon British spirits"—item, brandy and unenumerated spirits, cologne water, and perfumed spirits, \$2.53 to \$3.84 per proof gallon, with a round dozen of other articles which contain spirits, and which, if admitted free of duty, would badly *countervail* the domestic products of the same things and uses.

There is a fourth class of dutiable articles in this total list of 53, which stands boldly out, without excuse, as utterly exceptionable to the countervailings of this *free trade* tariff. Among them is *plate* gold, charged \$4.08 per ounce, and *plate* silver, \$0.36 per ounce; the bullion, or raw material, being free. Upon the fairest estimate that I have been able to make from the inexact data at command, upon these articles, England protects her own manufactures, by duties upon imports amounting to fifty millions of

dollars per annum, standing as a barrier against the importation of the quantity produced at home. She does not collect this sum at her ports, but she protects her own industries to this amount of their market value. Free trade is thus shown to be impracticable in fact, as it is a mere pretence in the theory of the country most able to adopt it.

P. You throw an emphasis on the word *countervail*. What is the significance you intend by putting it into elocutionary italics or small capitals?

T. To mark it with an emphasis. *Countervail* is a good word—an excellent good word. In ordinary honest use, it means to balance, to compensate, to defend, or even to protect; and I want to use it for the word protect, for it means exactly the same thing; but, as Mr. Weller would say, “it is a more tenderer word.” There is a seductive delicacy in calling these duties, levied expressly as defences of domestic industry, *countervailing*, or *equalizing* duties. But as the principle and purpose with which they are imposed is exactly the same as that which we bluntly and heedlessly call protective, I want to borrow the service of this happy euphemism. John Bull adopts the principle and continues the practice of protection, as far as of necessity he must, because the inland taxes or excises, which he cannot spare, raise the prices of his home products. And, may not Brother Jonathan lay such equalizing duties upon foreign imports as shall *countervail* his higher wages of labor, higher interest upon the capital employed, and his heavy inland taxes, which his old friend doubled upon him, by affording aid and comfort to the Southern confederacy? Plainly, Brother Jonathan must; but let him eschew protecting, and insist upon equalizing and *countervailing* his inequality of conditions. His rose will have a pleasanter fragrance under a like change of name.

D. This public document, like Falstaff, is not only witty in itself but a cause why wit is sometimes in other people; and you have been audaciously poking fun at the paper which you have called the “Statistical Abstract” of 1875. Pray, what is its authority?

T. The document is entitled “Statistical Abstract for the United Kingdom, presented to both Houses of Parliament by command of Her Majesty, and printed by the printers to the Queen’s

most excellent Majesty, for her Majesty's Stationery Office, 1875." In it you may find the tariff tables that I have quoted at the 15th page of this majestic document.

D. Has not England, in the fullest faith in her free trade doctrine, released some imports from countervailing or protective duties that *do* dispute the home market with her own products?

T. In the pride of an assured or assumed superiority she has opened some of her fabrics to a dangerous rivalry, and she is at her wit's end to resist the intrusives. Some time ago the newspapers were loud in complaint that French engines were being employed in their mines, and there is a general complaint against the German and American edge tools that are infesting their markets. Indeed, the manufacturers are beginning to argue the question of protection over again, just as if it had not been settled forever by the "advanced intelligence of the age." At the last session of Parliament, to encounter a bounty granted upon the export of refined sugar by Belgium and France, a Committee of the House of Commons thinks that a *countervailing* duty must be imposed for the protection of the British sugar industries, that is, its sugar refineries. The London *Times* is, of course, horrified at the proposition to restore the doctrine or policy of protection under any dodge in the name given to it. The *Times* says: "The disgrace of a Committee of the House of Commons recording anti-free-trade opinion thirty-four years after the successful adoption of free trade principles has actually been inflicted."

D. Still the facts of history ought to be allowed their proper force in the trial of theory. For an instance:—

France for thirty, and in effect for full sixty years, maintained protection and prohibition in the fullest force, yet, she yielded to the demonstrations of British experience, and relaxed her old time restrictions upon foreign trade in the Cobden treaty of 1860; which has been followed by a great increase in her commerce. This, certainly, looks like an advantage gained by her approximation to free trade in the provisions of the treaty, as the matter has been understood by the Lords Commissioners of trade in England.

T. Stop a little. The provisions of that treaty abolished effete restrictions, which were inoffensive, because they were really inoperative; but the bargain between the high contracting parties

left France an average defence of 25 to 30 per cent. for such of her industries as were endangered by free trade with England. Now, this rate of protective duties is more effective than any that we ever had, the relative exposure of the respective conditions being fairly estimated.

The United States have, for obvious reasons, usually required two or three times the rates of protective duties that would fully suffice for France.

Messrs. Cobden and Bright did the best they could by that commercial treaty; and they, and the Lords of the British Board of Trade, were bound to boast of the success that would serve for indoctrination of outside barbarians; who, by the way, need a great deal of schooling to enlist them in the discipleship.

Louis Napoleon was not overreached in the arrangement of that treaty. The protective duties reserved to France are, in fact, a model for the application of the principle of national defence in the items, according to the varied necessities which it embraces. For examples of adaptation:—The French charge upon heavy wrought iron is \$17.58 per ton; on small wrought iron tubes, \$48.85. The other forms of the metal are as well and carefully adjusted to England's superiority in that form of production; although I have heard of complaints by the French manufacturers that England, being able to make iron out of almost anything, was for a time underselling them. Silk tissues, hosiery, and lace were made free, because they can protect themselves. On refined sugar $3\frac{1}{2}$ cents per pound, a heavy rate, in defence of their own beet-root sugar. On plated ware \$195.45 per ton; and on cut-glass something less than 4 cents per pound—French skill in these goods being almost safe from the highest and cheapest art of England.

In general, from the highest to the lowest rates of duty provided for French protection, the faculty and ability of France in an even-handed contest with her rival, are reflected as in a mirror by the provisions of this celebrated treaty. One can learn from it, by the graduation of its impost rates, just what France can do for herself in a commercial struggle with her island enemy for the preservation of her own productive industries and arts.

D. Facts are stubborn things, and figures have the multiplica-

tion table for their endorsement. Two and two certainly make four ; and is it not just as clear that import duties must add their amount to the cost of the articles on which they are charged ; and by their reflected effect, as well as by the intention of their imposition, raise the price of the domestic article just as much ?

T. I will give you some facts and figures, bearing upon your question, to digest. In the year 1845 the duty upon imported pig lead was three cents per pound. The same sort of lead was selling in the New York market at three and a quarter cents per pound. The Secretary of the Treasury of that day (R. J. Walker), arguing for the free trade tariff of 1846, had no difficulty in showing by figures arithmetical that this duty was almost one hundred per cent. *ad valorem* of the selling price. In his remedial tariff he reduced the duty to twenty per cent., and lead went up to four and one-eighth cents before the year went round ! Now, according to your ciphering, it should have fallen to two and a quarter cents, but it went up to nearly twice that figure. Who paid the enormous duty of 100 per cent. in 1845 ? And who paid the increased *price* of nearly 100 per cent. under the tariff of 1846 ?

Can you tell me why foreign producers are so busy and anxious to reduce, and, if possible, remove the duties upon their exports in our market ? Have they any other motive of interest than the clear perception that *they* pay the duty, or lose its amount in profit, or wages, or capital ? The producer bears all the expense of fabricating his commodity, and, after that, all the expenses of transportation and other charges upon it before it is fairly in the foreign market. If a yard of cloth costs the producer at home but three dollars, and the foreign government takes one dollar in the form of an import duty, it costs the producer four dollars to produce it in the market to which it is consigned. If it brings but four dollars there, the importer has no profit ; and if but three, the duty is crowded back upon the wages and capital of the producer, and he must bear the loss. If it brings five or six dollars per yard, still the one dollar duty is so much in reduction of his profit ; and so, in effect, the duty is paid by the producer.

D. Surely *taxes* are paid by the man that pays them ; they come out of his own pocket, and are a reduction of his income.

T. Yes, *taxes* are so ; but protective duties are *not* taxes upon the consumer. Get that kink out of your brain. Quit ciphering, and think a little.

D. Why cannot the importer sell his goods for as much more than their prime cost to him as the duty adds ?

T. Now you are on the track. Suppose that the native manufacturer can produce the cloth at four dollars per yard, the foreigner thus is bluffed, and cannot command more ; and then, you see, the importer must pay the duty ; that is, lose it in the price of his goods.

D. But it costs the consumer that one dollar the more ; and, while it abates the foreigner's profit that much, it does not at all reduce the cost to the consumer ; and so, in effect, he bears the enhancement of the price, though the foreigner loses it. Both are losers, although the one is compensated by the other's loss.

T. There is one barrier to the producer's profit here interposed to his prices,—the competition of the native manufacturer. If it were tea or coffee that the importer had to sell, the whole duty falls upon the consumer, for he has no defence against him ; but, in respect to things which the native industry, under protection, can produce, the case is changed ; and that is the reason why manufactures, of which the country is naturally capable, but only accidentally incapable, should be fostered.

If that yard of cloth, like tea and coffee, could not be met by a competitive product, its price would be wholly at the command of the importer, and he could put it up to five or six dollars, as his prospect of sale might determine him ; and, as against any charge of import duties for the time, and consequent increase of cost, the security against any further advance is provided by the home competition through the duty imposed. Did you ever think of that ?

If the foreigner could throw the burden of whatever price that his monopoly of the home market would allow him, he could transfer to the consumer that one dollar duty upon his goods. Protective duties, if they do no more, at least hold the prices of foreign goods to a fixed maximum. I have known opium to go up to 150 dollars per pound, simply because we could produce none, and an embargo on the foreign importation prevented a supply. There is

something in industrial independence, where it is possible, worth the cost of its defence. Blankets cost us, in the year 1813, twelve dollars, which now we can have for three or four. Some of the burdens upon trade are prospective benefits, which compensate immediate losses in good time to reconcile us to a temporary enhancement of current cost.

But, if import duties do not fall in some fashion and degree upon the importer, why is England so industrious in pushing her free trade theories and commercial treaties, looking that way, upon the nations of the Eastern Continent? And why so lavish in expenditure with the same object among us, who are her greatest and best customers? No two free traders could pretend to each other that it is merely philanthropic, without laughing in each other's faces.

D. But you must admit that import duties, levied for the purpose of protection, must increase the market price of imported articles, because they are imposed for that very purpose, and that if the consumer buys them he refunds the duty to the importer.

T. Yes; if the consumer is fool enough, or feeble enough, to leave the field to the importers. Give him the monopoly of the market and he will indemnify himself, for he is at liberty to do so.

D. Do you venture to say that the producer pays the duty?

T. No. I say that when, and in whatever instance, there is no domestic competition, the consumer pays the whole duty, just as the citizen pays his internal taxes out of his own resources. And I say that the foreign producer pays so much, or the whole of the duty imposed, as home competition compels. It is the respective conditions of the country's industrial capability that settle the question. Another question must first be settled. What determines the market price of the article so charged? In further support of the doctrine that the producer sometimes pays the import duties, I adduce the case of drawbacks. What means the practice of drawbacks equal to the internal taxes charged upon manufactures, when they are exported? Nothing else than that the exporter cannot enter the foreign market if he be not relieved of the domestic duty, or excise, which is only another way of saying that the exporter must, in such cases, bear or pay the duty.

Countervailing taxes or excises have the same meaning. They throw the charge upon the producer, not upon the consumer, that is, upon the foreign producer, in relief of the domestic producer. When England charges foreign spirits \$2.53 per gallon in her ports, is she not clearly declaring that the producer must bear the duty which she imposes? It is so much burden and barrier upon the foreign importer, and he must meet it in abatement of his profit in her market. Absolute prohibition is only so much more of the same thing; and, surely, that all falls upon the foreigner; or, in the meaning of this argument, the producer.

D. But it seems to me that with all this shifting of the burden the consumer does not escape it, nor is he compensated by it.

T. Let me explain. All loss by protective duties is in *values* exclusively; while the country gains *productive power*, by which it is enabled to gain a greater mass of values; or the loss of values is the price of industrial training, to be afterwards compensated to the purchasers by even a more than equivalent reduction of prices; and presently, by the distribution of benefits throughout the community, and to the particular purchaser, if he be engaged in business, by the reactive effects of such common prosperity.

The present compensation for enhanced prices is in the immediate result that the agriculture of the country gains by increased consumption of its products, increased rent and exchange-value of real estate; and manufactured products, under the competition thus stimulated, fall immediately in relative price. This gain is ten to one greater than the loss by duty prices. Moreover, protection is not monopoly, because it is open to home competition. It is domestic free trade. It is patriotic. Besides, it attracts the skill and capital of other countries, and always increases international trade in those materials which it must import, and by those it becomes thus able to export.

D. A little leaning, I perceive, in this outlook of advantages to cosmopolitanism, as well as a close devotion to nationalism, and exclusiveness. Permit me to congratulate you.

T. I am glad that you are beginning to understand me. Physiologists speak of functions of the body which have the care of the individual, and of others which relate men to the society

around them and to the external world. They even recognize powers and prospects that are concerned alike with the present and the future ; and while they give the individual the first consideration, they thereby, so far from excluding, see provision for the more and more remote interests in the order of their relation to the central interests of the individual life. A system of economy legitimately national must have its policy as well adjusted to the great family of nations as to its own. But it is most nearly concerned with the interests which it best understands, and which are within its special control.

Understand, that protection intends the fostering of manufactures only in circumstances which render them practicable and expedient. Observe that manufactures involve so many branches of science and art, and such abundance and variety of laborers, and so much acquired skill, that all attempts to force them by protection or prohibition, prematurely, is injurious. Expediency is its governing law. Capability and fitting conditions are presupposed. The adoption of protection must be adjusted to, and be ruled by, the state of the country. Low duties, but sufficient, and these upon the most practicable subjects, first ; and afterwards rising and spreading with the rising and enlarging ability. Duties (for protection) must not be prohibitory, for this argues incapacity for the endeavor, and suppresses emulation of the domestic with the foreign manufacture.

Please understand protection to mean only the nursing care that immaturity requires, and so reconcile yourself to the guardianship of a nation over its own infancy. A time comes to those so guarded and governed, when nationalism and cosmopolitanism meet, for as I have said protection is the route toward free foreign trade. It secures freedom at home that it may be able to command it abroad.

D. You concluded our last conversation as if you felt that you were done with its subject. But be patient with me, for what is bred in the bone comes very slowly out of the flesh. Notwithstanding the felt force of your doctrinal principles, it seems to me unquestionable that an import duty imposed upon a foreign article must reflect an increase of price upon the domestic intended to be

protected thereby in the home market—I cannot see how this result can be escaped.

I have been reading the Official Report of the Special Commissioner of the Revenue made to Congress in December, 1869. He says, in so many words, that a reduction of the duty upon any foreign goods would necessarily be followed by a corresponding reduction in the price of the domestic article of the same kind. In exemplification—the effect of a remission of \$750,000 duty upon foreign pig iron in the fiscal year 1867–8, would be a relief to the consumers of the domestic article of no less than \$10,800,000, by the resulting reduction of its market price. The like reduction upon domestic salt, of \$600,000 duty upon the imported, would result to the consumers quite \$3,900,000 per annum. On four classes of imports charged with heavy duties he estimates the reduction of prices that would follow their free admission at no less than \$48,700,000 to the consumers of the home product, resulting from the reflected effect of \$6,112,000 duties released upon the competing foreign articles.

Now, if there is truth in arithmetic, an aggregate of 6 millions of duties upon foreign goods levied for the purpose of raising prices upon domestic productions, and having that intended effect, must be a tax of 48 millions upon the consumers; if eight times the quantity of the domestic are thus brought up to confront the quantity imported, I verily believe that 8 times 6 make 48.

T. Clear as mud! For explication and exposition, too, let us borrow the Special Commissioner's slate and his arithmetic. The official value of all the foreign goods charged with import duties which met the competition of American products in our market in the year chosen for his demonstration, was \$178,000,000. The average of the duties was a small fraction less than 48 per cent. The product of American manufacturers for the year 1859 was, by the census of 1860, given at 1885 millions. I estimate the increase upon this amount in 1867–8 at 85 per cent. It was much more, I doubt not, but certainly so much. This would bring our manufactured products in first hands up to 3487 millions. Now if this mass of prime values was increased 48 per cent. by the reflected effect of the protective duties imposed upon their foreign rivals in our market, they must have been thereby surcharged to

home consumers the enormous amount of \$673,760,000—nearly nine and a half times the amount of the revenue secured to the Treasury by the protective duties of the year—at the cost of 1759 millions to the consumers of the domestic and foreign goods together; or making their market price about one-half more than their prime value, that is, the cost of their production under free trade.

This is at once frightful, atrocious, horrible, and RIDICULOUS!

D. How so?

T. If this economic logic, backed by its immeasurable arithmetic, were practically true, the consequence would be that the smaller the proportion of duty-paying imports to the domestic supply the heavier would be the tax upon them. Thus, if our own product of a given article equals our import, say, to the value of 10 millions each, and the duty is 25 per cent., the increased price upon the domestic article would be $2\frac{1}{2}$ millions. If the domestic product be 100 millions and the import duty only 10 millions, the duty reflected in increase of price at 25 per cent. upon the domestic would mount up to 25 millions. The arithmetical or free trade consequence is that we must not, for the sake of the consumer, lay any duty at all upon foreign products which compete with our own, but should collect all our customs revenue exclusively from such articles as we do not or cannot produce.

Is this cosmopolitanism or free international trade? Or is it a “Chinese wall” built to dike out that mutual interchange of supplies which is providentially intended to make the whole world kin?

D. Let me see:—If import duties have the effect of increasing the prices to consumers, we should not impose them upon the products of which we are capable, because they multiply in proportion to our capability of production—that seems true. And, if so, all import duties must be merely taxes upon consumption. This is more than I bargained for. The multitude are the consumers, and a tax upon them is not according to ability to bear it. Assessments according to values of property are fair, but taxes on consumption fall heavily upon necessities; they ought to fall only upon enjoyments, or the advantages which government secures to

their possessors, for property is only that which the public law declares to be such, and which it defends. I am embarrassed. Look here, Mr. Teacher, if values in consumption are not the rule of taxation, how comes it that *ad valorem*s figure so largely in tariff lists?

T. They are aliens to the principle of protective duties. Some articles, which cannot be described by weight, number, or other enumeration, must be so estimated and assessed; but no purely protective system regards the values of its subjects. It is not taxation in spirit or purpose, and obeys none of its rules.

The tariff of 1846 was discriminative and protective in its promise, but was vitiated in its details by the substitution of *ad valorem* for specific duties; and in this it disappointed the trust which it invited. Sound protective tariffs utterly repudiate *ad valorem* duties, wherever they are avoidable, for their inherent frauds and infidelity to their object, even where they are honest. An *ad valorem* rate is in conspiracy with undervaluations to cheat the revenue, and disappoint the hope of protection. In their capriciousness of operation they are always highest when they are not wanted, and always lowest in yield and use when most wanted. All experience repudiates them, wherever they can be avoided. England imposes duties upon artificial flowers by the cubic foot, specifically, to avoid the fraud of undervaluation, and the continental nations generally impose duties by the pound upon cutlery for the same reason, which, by the way, compels the better and best articles of import, for they better bear the impost. If a fine razor pays no more than a poor one, it is preferred by the importer, and the market is so much the better supplied. *Ad valorem*s are the crimes and cheats of import duties.

D. By the way, what is the theoretic objection to throwing taxation upon consumption? Is it not like rent and interest upon property and income? Ought not every man pay for what he uses, and pay the government for the care that secures him in enjoyment in proportion to his use?

T. You are now opening up for consideration the principles of taxation,—a question too large for our limits. I must content or limit myself to taxation, as a policy or expediency, which, I think, will meet the drift of your question in its present pertinency.

Assessment according to consumption would be neither equitable nor practicable. Indeed, neither income nor property value can be made a basis of rates. Neither theory nor experience have found a philosophic system of taxation. In practice the rule, that the exaction must be according to ability and availability, overrides all other general principles. The possible bounds the practical; and, even if humanity and the common welfare were out of the question, a ratio or percentage, upon consumption would still be impracticable, which is another reason why imposts for revenue, governed by the rules and rates of taxation, are inadmissible, unmerciful, and undemocratic in principle, for it would raise, perhaps, nine-tenths of the public charges from the class or classes that have not more than one-tenth of the ability to pay them. Oh, no! those who live from hand to mouth must not be taxed on their tea and coffee in proportion to their numbers, or as thousands to one of the wealthier classes. On the contrary, Protection has in it that sort of class legislation which kindly considers and tenderly discriminates among its impositions, fitting the burden to the back.

A tax upon consumption, like a capitation tax, in the present order or disorder of civilization, working like an automaton, would be insensible to conditions, and, respecting numbers only, would ruthlessly excise all ages and capabilities of men, women, and children, counting the millionaire and the chambermaid, each alike, and respectively one, under the levelling ratio of its exactions.

You must see that all men are not equal before all the laws which affect them. And let me ask you to notice that those apothegms, or abstract logical propositions, on which free trade so confidently builds itself, must in practice be applied with a difference, as Ophelia, like the fates, distributed her rue.

P. We have never, since the organization of the Federal government, had what our English friends would call a free trade tariff. The nearest approaches to it have been "tariffs for revenue *only*," and "tariffs for revenue, with incidental protection." Their ruling principles, a good deal mixed with policy, and cross-cut with necessity, are uncontrollable by any principle. How have they worked and resulted?

T. Uniformly in failure, gross, palpable, disastrous failure; failure in the very matter of revenue, to which they were specially

directed ; and disaster to the national credit, through their ruinous effect upon the business of the community,—personally and directly by checking domestic industry,—so that the people could neither buy the promised cheaper imports, nor meet the usual domestic taxation. A tariff for revenue by its very terms is a *tax* transferred from the household to the custom-house. A tariff for protection, on the contrary, says explicitly, tax the foreign product, and set the domestic labor and capital free to meet their proper share of the exigencies of the national treasury. It says to the people : I give you full employment, in the assurance that you will be able to buy largely of foreign products, and to consume liberally of our native products. I make your wages and profits at once adequate to supply the exchequer, and your own necessities and enjoyments.

That our protective tariffs have not been in any degree prohibitive of foreign trade is overabundantly proved by the history of the customs duties always greatly enhanced by them. They have time and again always, without an exception, refuted the theory of their opponents.

D. This doctrine, or this inference from experience quoted, would seem to me a paradox. Surely burdens upon imports must be restrictive of foreign trade, but you affirm that they are, curiously enough, promotive of the very international exchanges against which they are levelled. How is this ?

T. Why, my dear sir, purchasing and paying are reciprocals. Consumption does not depend upon supply, but supply depends upon consumption. A merchant's goods rot and rust in his warehouse when he has no customers, and he can have no customers but those who are able to pay. Prices have no arbitrary effect ; they are relative to the means of purchasing. On the wages of a dollar a day I am as able to purchase as on half a dollar a day at half prices, and if I am in enforced idleness I can purchase nothing. A growing boy will face the winds that would wither a consumptive. Economic problems are not worked by the single rule of three, of which the factors are abstract statistical figures. They come under a double rule of proportion, in which the means on one side govern the measures on the other. How silly it is to say that if the money price of an article be increased, it is thereby put so

much further out of reach. If the means of attainment are at the same time equally or more greatly increased, the cost being fixed, what becomes of your ciphered destitution?

P. We were amused by Abraham Lincoln's homely saying that it is easier to pay a good deal if you have still more, than a little if you have less. In that truism I think he anticipated and at the same time clinched your theory of prices.

D. The subject is broader, I perceive, than abstractions embrace. And this is the reason, perhaps, that confidence is found to be too hastily given to aphorisms and apothegms, which at first blush appear to stand self-proved, and do not need cross-examination. Give me time to reflect, or if you can, accommodate me with the points made in this debate.

T. It would be as tedious as unnecessary to give you the instances either in particulars or in categories, which prove that protective duties levied in the strictness of the principle, always secure the consumer from arbitrary prices by preventing monopolies in trade—that they always in good time reduce prices to the level of the general rewards of labor and capital—that they throw their burden upon the importer in the ratio of their efficiency, when judiciously adjusted to the capabilities of the country—that they always repay an hundredfold any temporary increase of prices by putting every variety of capability to profitable employment—that they increase the wages of labor and the profits of capital more than commensurately, immediately, to all consumers who are partners in the business of the time, and raise to more than equivalence, the exchange value and the rents of property in relief of the cost of sustenance, and whatever of taxation may fall upon the owners.

Only annuitants, office-holders upon fixed salaries, and idlers, living upon past accumulations, can possibly be burdened by their operation; which is justified by the necessity that the live world must not be arrested in its progress for the accommodation of its sleeping partners.

P. I have just now seen a report of the Chief of the Bureau of Statistics, giving our foreign trade from 1861 to 1880. It seems to me conclusive against the charge that protection is restrictive of international trade. In the first fiscal year, 1861, which ended

on the 30th of June of that year, we were still under the nearly free trade tariff of 1857. The net import of foreign merchandise of that year, in gold values, was \$274,656,325. In 1880, under protective duties, they were \$656,198,440, almost two and a half (2.39) times more. That for the buying—now for the selling. In the year 1861 we exported of domestic products \$204,899,616, and in 1880 \$824,106,790, something above four times (4.02) more than in 1861. Further, remark, that under the nearest possible approach to free trade the buying was 25 per cent. greater than the selling; and in 1880 the selling was $27\frac{4}{10}$ per cent. more than the buying; and, in the aggregate, the total foreign trade of 1861 was but \$479,555,941, but the total of 1880 was \$1,480,305,239. Thus the total foreign trade had increased above three times (3.08) under the protective, over the free trade tariff, which had its full sweep before the beginning of the Rebellion. So it seems that we can both buy and sell under the rule of a defensive policy; and so the logic in the phrase, “if you do not buy you cannot sell,” as the effect of protective rates upon foreign imports vanishes at the touch of experience.

I observe, moreover, in support of your doctrine that all non-competing imports should be exempt from imposts, which not being protective in operation should not be taxed; that the tariff lists published by the Bureau make free of duty all tropical productions, and all such commodities as do not interfere with, but rather promote our industries—such as coffee, tea, cocoa, medicines of the growth of warm climates, dye stuffs, gutta percha, grasses for the manufacture of paper, and nearly every kind and quality of goods that we cannot produce, with a very few exceptions, of unimportant value, such as wools coarser than can be grown in our climate, which on principle ought to be exempted from duty, where they do not displace our home products.

D. You have several times spoken of protection and of free trade as if they were not fixed principles of public economy, but only means adjustable to the variant conditions of communities—expediences, rather than laws or philosophic rules, arbitrary in application.

T. Right as to the point in general statement, but subject to such necessary modification as must protect such propositions,

made in the currency of discussion, from over-sharp construction. By the phrase free trade, when I have spoken of it as the outcome of a policy required to prevent rivalry in domestic and foreign markets, I meant that wild fantasy avowed by the unreflective of the party of free traders, which allows and requires utter defencelessness under all circumstances, as if the whole world were one great consolidated confederacy, or republic of merchants; allowing all inequalities of conditions and capabilities to work as they may, with the chance of survival only to the strongest—with no provision against casualties; no defence against abuses; no shelter for the weakness of immaturity—a brutal rule of might against right; in a word, a logical law of practical lawlessness!!

The essence of government is protection, whether the agencies and methods be directory, punitive, providential, or otherwise remedial. Human societies are not yet in the order in which it is promised that “He shall have put down all rule, and all authority and power, for He must reign till He has put all enemies under his feet,” and “the lamb may safely lie down with the lion.”

I have not in any use of the term regarded free trade as it is calculated for the millennium! On the contrary, I do not believe that in so broad a sense the principle can be established among diverse nations and people, even under a universal federation and a universal peace. Even if all nations were equal in capital and skill, labor-power, and all the facilities and appliances of industrial production, might not a mischievous competition ensue, making it necessary to put up defences against aggression? But such considerations as these apart, the universalists of trade restrict their policy to international exchanges. Their doctrine, and its regards are not free trade, but free *foreign* trade; free domestic trade being totally disregarded. Of course I never mean such free trade as this, when I speak of it as the issue of a sound commercial policy.

D. Restriction upon foreign trade is the only thing that they are called upon to resist. As for domestic commerce, that is entirely under the laws of nature, or, otherwise expressed, under the common law of demand and supply, and will take care of itself.

T. But foreign trade must be under the same law, or some law. If it be a universal one, its supplies come into competition with the domestic in the common market, and if competition is in effect the war of trade, defence against it is justified. Their antagonism makes their relative economic values a matter of moment in the controversy.

Fairly stated the conflicting forces stand thus: No nation or people derive more than one-tenth of their consumption from foreign nations. This is the whole strength of the commercial tie that binds distant regions and different interests in the legitimate bonds of brotherhood. The diversely situated and conditioned peoples of the globe are not twins or triplets or sextuples of each other. Their exchange relations are a limited partnership, not a communism. The resulting necessary and healthful exchange of commodities between them does not really exceed five per cent. of their respective requirements, or inter-dependency. An amount equal to one-twentieth of their own products is the measure and limit of natural commerce, and, measured by the industries which do not appear, and are not measured by market prices, such as household and professional occupations, they are not effectively one in a hundred in the value of uses; all of which suffer more or less by invasion, directly or indirectly, and always injuriously. But, waiving all these mischiefs, for their incalculable economic results, if we take the usual imports at one-tenth of a people's consumption, it is clear that the producers of the nine-tenths ought not to be put into restraint by the other tenth.

D. One other difficulty must be disposed of, I think. It is conceded that the scholars and leaders in literature, and in economic philosophy, generally accept and advocate the system of thought and doctrine which you so zealously oppose. How do you reconcile your conservatism with the leanings of the advanced intelligence of the time?

T. The free-trade school could take the subjects of political economy out of the domain of sound discretion, experience, and common sense only by making a science of it—by converting and transfiguring the business of life into a set of abstractions; just as the Aristotelian syllogism proves, logically, that a man is

a goose, because both man and goose are animals, thence the inevitable corollary.

D. Correspondence in a single particular may, however, be a measure of general conditions. Gladstone, for instance, estimates the growth of the general wealth of Great Britain by the growth of the income tax. Apparently trivial incidents are indications of the most general facts. In Washington City you do not find a front-door scraper at any recently built house,—showing the general great improvement of the city, especially of the streets and pavements, which are now wholly free from mud. Straws show how the wind blows.

T. Mr. Gladstone, in 1866, used the money-worth of the British exports, as a measure of its surplus productions. He did not undertake the problem of the kingdom's *welfare*. If he had, he would have been obliged to consider some of the troubles which now, as Prime Minister, he finds almost, if not quite, unmanageable. Such as the enforced emigration, the pauperism, the discontent, the crushing dependency upon foreign markets, the starving necessities of her manufacturers, including her book-makers; the one, despairingly struggling to establish free trade abroad, and the others begging for copyright; both meaning that if we don't buy and pay they cannot live. He has on his hands, besides, Irish famine and threatened insurrection, with a fearful brood of other refractory chickens which are stretching the wings of the mother bird to their very tips.

D. One thing more and I am done. You allow the expedient a commanding influence against the theoretical. How does this principle work upon the populace of a republic, in a case that requires present sacrifice in the matter of prices of the commodities of daily consumption, under a postponed expectation, or a glimmering perspective of future compensation? If your protective tariff enhances prices, and continues to enhance them until domestic enterprise, labor, improved skill, and home competition shall possibly reduce them again, how can you induce the people who live from day to day, and those whose increased expenses fall upon them, also, from day to day, to live on trust through the certain interval and its uncertainty of success?

T. Oh! A statesman must follow, not lead the mob. He

must be the worst of them if he would get the better of them—the *vox populi* is the *vox Dei* for him, and democracy believes in self-government only because it will have its way, and expediency is nothing after all but popularity!! So I understand your democracy. This may be the demagogue's philosophy; but it is not history. I do not say that the populace can see through a millstone, but they can feel its grinding; and when theories eventuate themselves in palpable facts, every people will understand them without the critical ability of abstract speculation.

But, *ad hominem*, the party which holds that every man is the best judge of his own interests, concedes the competency of the common people who rule the nation by their votes to administer their own affairs wisely. Take that.

If, however, the practicability of protective legislation, looking away from prices to the higher and more permanent creation of a power which promises to produce values, were doubtful in prospect, the policy is not in that tribulation. It is not a telescopic squint at a distant result. Its effects are immediate, instant. What you call its prospects are the *substance* of things hoped for, as well as the evidence of things foreseen. Protection does not look at prices nor scare at them. It looks to power over prices present, as well as prospective, and equally realizes both. The *nunc stans* is in its grasp. The permanency of absolute law is its faith, and believing in the certainty of cause and effect, it has the *now* for inspiration as effectively as the future for experience. To reduce the proposition from theory to practice, observe that all enterprise is on the spring of the prospective. It is not what to-day is, but what to-morrow shall bring forth that governs its impulses and ventures.

Say a revival of industry and its rewards are not only dependent upon the issues of a given policy, but even say the actual operation of the agencies concerned is postponed to a day six months after the date of the legislative act. The assurance which it gives, instantly brings forth the capital and awakes the credit of preparation, and the nation's prosperity is born in a day. Not only credit, but hope is capital; because inspiration is power.

Nobody but democrats doubt or fear the democracy: I mean the representatives of the people, or the people themselves, when

they have the time to judge policies by their results. In the late Presidential election the question of protection was fairly in issue, and being well understood in its operation upon the general prosperity, it was intelligently supported. I do not assume that a political Congress can wisely adjust the details of a tariff law, but the community can judge it by its fruits. The British Parliament knows very well that it is not competent to arrange the rates of import duties safely and justly ; it therefore delegates the duty to experts, and accepts their report. In 1852 the Parliament appointed a commission for this purpose, and without further inquiry confirmed its recommendations ; and notably, the object of that appointment was mainly to get rid of the *ad valorem* duties in the schedules then existing, although of the twenty millions of gross yield to the revenue, not more than one-quarter of a million came from that rag-and-tag mode of assessment.

CHAPTER XX.

CLOSE OF THE DEBATE.

D. You have impressed me with the opinion that the knowledge of business affairs does not lie open upon their surface reports ; that a lazy common sense, or the conceit of it, is not a philosophic directory of societary relations and conduct ; and that every man's opinions are not as good as every other man's, and a great deal better. That every man has a right to think for himself must be conceded, whether he thinks wisely or otherwise, even in matters so hard to understand that no one surely knows who understands them. In questions of law and medicine deference is usually given to experts ; but, on the subjects of social and economic science, everybody is at liberty, and everybody must be competent, of course, because there is no admitted court of appeal and final authority, and there is no decision which every man is bound to respect.

Pardon me, I am rather confused by the discussion. I was so

comfortable before these conversations began. Everything that I believed, or thought I believed, was unquestioned, because it was *a priori* unquestionable. I had what bookkeepers call the footings of all accounts, and felt perfectly posted as to the balance of the pros and cons of every question under discussion. But you have so ruthlessly run the ploughshare of cultivation through the surface of the flowery field, and torn it open for the seed and cross-harrowing of industrial culture, that I am turned into a pains-taking laborer, when I had thought that I was a leisurely inspector of a gathered harvest of results. But I thank you for all the trouble you have given me. By the help of your method of study I have the hope that hereafter I may know assuredly the things that I shall learn, and be so much the less inclined to assume the things that I do not assuredly know.

P. I had no prepossessions to embarrass me, because I did not suppose that I knew anything. But I needed to be disembarrassed of an irreflective reverence for the popular or accepted authorities, which checked inquiry and growth in appropriated knowledge. I feel obliged to our teacher for a wholesome release from the hackney logic of the economic sects, generally used to assure their disciples, though incapable of convincing anybody else. I confess, however, that I am in some danger of laughing at the *currency* logic of the illustrious system makers, and of doubting the exercise of reasoning in the data of statistics.

T. I have not intended in these conversations to teach you an unreasoning skepticism in respect to figures or facts, but to use your reason under common sense rules. If I have been critical in the study of our subjects, and of opinions concerning them, I intended only to put up cautionary warnings, where theories were driving along at railroad speed, that you should "look out for the engine" at the cross-roads and switch-tracks that stand open, endangering accidents by the way.

APPENDIX A.

PROPORTION OF BANK CHEQUES, BANK NOTES; BILLS, DRAFTS, AND COIN RESPECTIVELY IN THE *banking business of England and the United States.*

In Sept. 1865, Sir John Lubbock reported that of £19,000,000 received at his bank, the cheques and bills constituted 96.8 per cent., bank notes 2.2 per cent., country notes 0.4 per cent. (all notes 2.6 per cent.), and of coin 0.6 per cent.; or of *credit money* 99.4 per cent. and of coin only six-tenths of one per cent.!!

In 1880 Mr. John B. Martin gives a table of the receipts of *all* the London banks at 99 per cent. of bills, cheques, and notes, and 1 per cent. of coin.

In November, 1877, the late President Garfield, then a member of Congress, requested the Comptroller of the national banking system to institute an inquiry upon this subject, which resulted in the fact that in six days, of \$157,000,000 received over the counters of 52 national banks, only 12 per cent. was in cash, and 88 per cent. in cheques, drafts, and commercial bills.

In this investigation the Comptroller of the Currency, Mr. Knox, has taken a leading position, which is accorded to him by the London Institute of Bankers. He has pursued this subject with great industry and success in the last two or three years.

In his annual official report of December 5, 1881, he gives the results of the reports made to him, which show that, on September 17, 1881, the total receipts of all the National Banks were in cheques, drafts, and bills—an average of 94.1 per cent. of the total; those of the city of New York 98.8 per cent., while those of banks elsewhere than in the principal cities amounted to 81.7 per cent.

This difference of proportions between the receipts in places where the business of exchange is best organized and those less well arranged, shows the force and use of system in the credit business of the country,

and shows, besides, how greatly the precious metals and their representative circulating notes are eliminated from the marts of general commerce.

As I cannot transcribe the report of the Comptroller in all its instructive details (which are all given with their full effect), I must refer the inquirer to his Annual Report for 1881, which, I am allowed to say, will be forwarded on application to whomsoever may require it.

I add a comparative table of these percentages, compiled by Mr. Pownall, and read before the London Banker's Institute in November, 1881; to which Mr. Knox has prefixed the report of the National Banks of New York City for September 17, 1881.

Localities.	Coin.	Notes.	Cheques.
	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>
New York	.55	.65	98.80
London	.73	2.04	97.23
Edinburgh	.55	12.67	86.78
Dublin	1.57	8.53	89.90
Country banks in 261 places	15 20	11.94	72.86

"It will be seen that the proportion of cheques and drafts used in London does not vary greatly from that of the same items shown in the receipts of the banks in New York City. The proportions used in the banking business of the country districts is less, as in the United States it is less in the banks outside the cities; but the use of cheques and drafts in the country districts in the United States is nearly nine per cent. greater than in the corresponding districts in England."

Mr. Knox gives another statement derived from official reports of the National Banks, collected under his orders, showing the proportions of their receipts on the 17th day of September, 1881, thus:—

Percentages of Total Receipts.

	Gold coin	Silver coin.	Paper currency.	Cheques, drafts, etc.
New York City	0.54	0.01	0.65	98.80
Other reserve cities	1.86	0.18	5 61	92.35
Banks elsewhere	3.31	0.68	14.27	81.74
United States	1.38	0.17	4.36	94.09

The Bank of France, with its 90 branches, has the entire control of the note circulation of the Empire, and is, therefore, in the position to report the proportions of its own different kinds of circulation, paid and received; but the business system of cheques and drafts, and other instruments of the set-off settlements, so largely used in England and the United States, have been very partially introduced in France, and its bank reports do not afford us a useful comparison, otherwise than as they illustrate the effects of the unlike usages of the different systems of currency.

For the data of this really important statistical question in the monetary system, I cannot too emphatically refer the studious inquirer to the report of the Comptroller of the Currency of the date December 5, 1881, pp. 11-26.

The Journal of the Institute of Bankers (London) of December, 1881, estimating the service of Mr. Knox in this inquiry, and anticipating his promised last report, says: "There can be little doubt that with his great ability and grasp of details, he will extract from them all the information which they can be made to yield."

INDEX RAISONNÉ.

- POLITICAL ECONOMY, what it is and is not, 9
 Authorities in, 10
 A system, not a science, 11
 Remedial, not arbitrary, 11
 Empiricism, Baconianism, 12
 Uses, not essences, known, 12
 Study of the ensemble, 13
 Rule of investigation, 13
 Subjects and objects of economic study, 14
 Deductive and inductive methods, both required, 14
 Heresies of the authorities, 15
 Doctrine of despair, 15
 Mischiefs of theory at work, 16
 Man and his conditions, 16
 Divine order of society, 17
 Limits of the inductive system, 18
- Wealth*—Definition of, 18
 The light ahead, 19
 Experience as a guide, 20
 Substances of wealth, 20
 Wealth and capital, 20
 Labor is capital, 21
 All utilities are riches, 21
 Property is worth what it yields, 22
 English assessments, 22
 Wealth is well-being, 23
- Growth of Wealth*—Labor value of all commodities, 23
 Original powers of the soil, 24
 Value of natural forces, 25
 Land, a machine, 25
 Vital and inanimate machinery, 25
 Grammar, the *mechanism* of language, 26
- Occupation of the Earth*—Man and land; choice of location, 27
 RENT, Ricardo's theory of, 27
 Choice of land under conditions, 28
 A pioneer chooses his match, 29
 The richest lands rejected, 29
 Men begin always with inferior machines, 30
 Abandonment of the best, 30
- Occupation of the Earth*—
 Cosmopolitanism not true, 30
 Distributive law of settlement, 31
 Colonization, ruled by isothermal lines, 32
 Invasions and migrations, history of, 32
 The law and the facts, 33
 World-wide sovereignties, 33
 England's occupancy of India, 33
 Consequences of the law, 34
 The law in the United States, Hamilton, 35
 Federal Unions, 35
 The husbandman and landlord, 36
 Human sustenance, provision for, 36
 Famines in agricultural countries, 37
 Inter-dependence of industries, 37
 Demand limited as the supply is, 38
 Narrowness of outlook, 38
 Imperfect agriculture, 39
 Abundance of land waiting for cultivation, 40
 The available in reserve, 40
 English agriculture, 40
 Effect of balanced industries, 41
 French agriculture, 42
 American sufficiency, 42
 Sufficiency a relative term, 42
 Disorders the data of the dismal science, 43
 The law of nature, 43
 Fixed property the measure of wealth, 44
 Northern and Southern States compared, 45
 Land monopoly in England; division of, in France, 45
 The French peasant a *husbandman*, 45
 Popular loan of Louis Napoleon, 46
 Agriculture in the United States, 46
 Virginia farming, 47
 Nature an economist, 48
 Solidarity of a true economy, 48
 August Comté, method of, 49

RENT—Science of agriculture in expectancy, 49

Products of land and labor, difference of, 50

Property in land usurpation! 50

Argumentum ad absurdum, 51

Fundamental principles, 51

Land under the common law of property, 52

Theory of value solves the question, 52

Cost and value, 53

Progress, with a better time coming, 53

Instances of amelioration of conditions, 54

Specialties in inquiry, 55

A part more than the whole, 55

Means and demands of human life, 56

Consumption is reproduction, 56

Tables prefigure facts, 57

The supernatural in the mechanical powers, 57

Delegated omnipotence, 58

Cause and effect, 58

Matter conjoined with spirit, 59

Dynamic force of coal, 59

Auxiliary force and velocity of machinery, 60

Machinery the bone and muscle of science, 60

Tyndall and Huxley verging upon spiritualism, 61

Munificence and benevolence of mechanical inventions, 61

Brute and human life, differences, 62

Design of life limits its duration, 62

Entertainment for man and beast, 63

Rectification of appearances, 63

The exotic and the native in British products, 64

Foreign trade, true system of, 65

Trade relations, natural law of, 65

Foreign trade naturally supplementary, 65

Free trade a misnomer, 66

Domestic commerce is more than huckstering, 67

Division of labor, Smith's doctrine of, abused, 67

Commerce differs from trade, 68

Statistics of foreign trade unreliable, 68

British and American reports defective, 69

Consumption the true measure of wealth, 69

RENT—

General welfare best measure, 70

Improvement in travel and transportation a measure of wealth, 70

Time and cost of transportation lessened, 70

Facilities of commerce in growth of wealth, 71

Summary of wealth-producing agencies, 72

Cheapness and plenty supplanting dearth and scarcity, 72

Vastly enhanced well-being, 73

Contrast of savage life, 73

Famines in Judea, 74

Vegetable and animal food, proportion of nutriment in, 75

Substitution in clothing, 75

Mineral supplies, progress of, 75

Beneficent distribution of products, 76

Substitution, successive stages of, 76

Tabular lists of, 77, 78

Progress from inferior to superior of the same kinds, 78

Another kingdom in the domain of the physical sciences, 79

Knowledge is power, 79

POPULATION—Rate of increase, 80

Various among Europeans, 80

Inconstant rate of mortality, 81

Inequality of survivals, 82

The inductive system incapable of the problem, 83

The grist of the Gradgrind system, 83

A priori leads to *a posteriori*, 83

Mind has instincts as the body has, 84

Design regulates fertility, 85

Law ruling in order; a basis of reasoning, 85

The rule of law in disorder, 85

Production of life least where its activity is greatest, 86

Unequal activity of the vital functions, 87

No constant quantity, 87

Antagonism of the nervous and generative functions, 88

Law of balance and counter-balance, 89

Indian characteristics, 89

Counterpoise of the passions, 90

Promise of harmony, 91

The law works best where most needed, 91

Amendment of conditions tends to adjustment of provision for life, 153

POPULATION—

Waste of life not a remedy for, but a cause of, fecundity, 92
 Summary of the argument, 93
 Symmetry of J. B. Say's categories, 93
 Confusion in the Say school, 94
 Say's triad is only a duad, 95
 His *distribution* is nothing but exchange of values, 95
 Blanqui and Ricardo on natural rate of wages, 95
 The protests of humanitarians, 96
 Insurrections of the laborers, 97
 Capital and wages born of civilization, 97
 Carey's law of wages, 98
 Labor and capital joint factors in production, 99
 The gain of the purchasing power of wages under accumulation of products, 99
 How increased wages results from increased productiveness, 99
 Productiveness of the human machine dependent upon its condition, 100
 Better service commands better wages, 100
 General law, that only land and labor enhance in exchange value, 101
 All improvements in production mean and intend greater cheapness, 102
 Labor-cost in cases of genius and in best soils, 102
 The enhancement of wages found in the elevation of the masses, 103
 Progressive improvement slow but sure, 104
 Historical increase of wages in England and America, 104
 In France, 104
 Purchasing power of wages in domestic service, 105
 Tabular statement, 105
 Evidences of enhancement in wages, 105
 Displacement of drudgery by art, 106
 Song of the Shirt to a new tune, 106
 New wine bursts old bottles, 106
 Prices of agricultural products not a good standard of wages values, 106
 Wages and expenses in Massachusetts, 107
 Our census reports unreliable in the matter of wages, 108

POPULATION—

Census reports of wages in the three last decades, table, 108
 Increase of machinery does not explain decreased percentage of wages to products, 109
 Criticism of the census reports by the superintendent, 109
 Wages and profits confounded in the census tables, 110
 Other sources of error and uncertainty in the reports, 110
 English method of estimating the national wealth, 111
 Various estimates by English experts, 111
 Vices of the income tax estimates and of values of domestic exports, 112
 Guess at the rate of increase in wealth of Great Britain and the United States, 112
 Rise of the masses the surest measure of growing welfare, 113
 Conclusion as to wages in the United States, 113
 Tendency to equality of benefit in the ratio of growth of wealth, 114
 Wages the index of productiveness, 114
 Illusions of averages and percentages in statistical inferences, 114
 MONEY—What money is, 115
 Various mediums of exchange, 116
 Money not a standard of values, 116
 Precious metals matters of merchandise, 117
 Legal standard, 117
 Various standards of money value in past times, 117
 Changes in the money-account value of a pound of silver, 118
 Exchange value of money declines like other things, 118
 Reduced burden of British debt in money values, 118
 Production of the precious metals in past time, 119
 Production and consumption in the arts in recent years, 120
 FUNCTIONS OF MONEY—Money not dead capital, 121
 Various kinds of money adapted to various uses, 121
 Precious metals command their use by their fitness, 122
 The special qualities of the precious metals, 122
 Their quality of convenience the essence of the money service, 123

MONEY AND PRICES, 124

The money in use, not the equivalent of the exchanges, 124

Montesquieu, Hume, and Mill in error, 124

Money not a measure, as pounds, weights, and yardsticks are, 125

Hume in contradiction to himself, 125

Mill likewise and unwise, 125

Settlement by set off, 126

Proportion of money to amount of business exchanges, 126

Influences upon prices, 127

Umeasurable effects of outside causes, 127

EQUIVALENCE of money has no relation to the facts of exchange, 128

Money of account, the standard, 128

Metaphysics in the common mind, 129

Relation of prices to supply of the precious metals, 129

Uncertainty of prices in the centuries, 130

Thomas Tooke, authority of, 131

Quantity of currency not a regulator of prices, 131

Expansion of currency an effect, not a cause of, advanced prices, 132

Increase of currency with decrease of price, 132

Prices rose and fell under influx of coin, 133

Facts against logical abstractions, 133

Montesquieu's demonstration of equivalence of money and price, 133

Standards—gold and silver, or both, 134

Mono- and bi-metallism in currency, 134

Conventional value, an ideal standard, 135

Variance in value of gold and silver, historical, 135

Increase of gold has not inflated prices in fifty years, 136

Legal tender, an arbitrary determination of value, 137

Effect of quantity of the precious metals, 137

England's preference of gold as the unit, reasons for, 138

Merchants, a universal commonwealth, 138

Compromise of the Latin nations, 138

Standards—

Commerce in the precious metals, 139

Cosmopolitanism, its limitations, 139

The precious metals, a national interest and concern, 140

Relative circulation of metallic and paper money in United States and in France, 140

Non-exportable currency, 141

Patriotic service of the non-exportable during the suspension of specie payments, 141

Debasement of lawful coin not fraudulent, instances, 142

Convenience of coinage, 143

Depreciation, in France and Turkey and in the United States, 143

Surplus of gold and silver, commodities of trade, 144

Money only an instrument of exchange, not of its substance and its substance indifferent, 148

Substances of money (repetition), 145

Not equivalents, 145

National money and balance of trade, 145

Office and service of specie reserve, 146

MONEY—A PRODUCER OF VALUES, 146

Labor, "the creator of wealth," rectified, 146

Compass of the term, 146

Capital in production, a co-efficient, 147

The partners in production, 147

Capital, 147

Savages, 147

Capital the *primum mobile*, 148

Interest—the earning of money, 148

All are hirelings who serve, 149

MONEY OF ACCOUNT, 149

Ideal money, the *macutes* of the Africans, 150

Bishop Berkeley, money of account, 150

Act of Congress, Hamilton, Jefferson, 150

Colwell on money of account, 150

What it is, 150

Marquis Garnier, detail of money of account, 150

Kelly, author of "Universal Cambist," standard of the precious metals, 151

Units of value without corresponding coins in England and America, 151

MONEY OF ACCOUNT—

Precision in the weight of the sovereign, 152

Anecdote of the poultice, 152

CREDIT MONEY, 153

Money medium, its convenience and effectiveness; its essentials, 153

Discussion of the derivation of the word, useless, 153

Money and the mechanical powers, difference of qualities of, 154

Cost of the fractional note currency, 154

Unit of value, in different countries, 155

Measures of space ideal, as well as measures of value, 155

Standard of value, disturbance of, troublesome, 156

Denominations of circulating notes, governed by convenience, 156

Relative numbers of the denominations outstanding, 156

Proportion of coin to paper notes in circulation, 157

Notes, deposits, and coin aggregated, 157

Ratio of coins and paper money in circulation, 157

Total requirement of money, guessed at, 158

Equivalence of money to exchanges, 158

Money values exchanged as often as those of commodities, 158

Set-off, the idea of money not in its substance but in its service, 159

Influx of the precious metals, how disposed of, 159

Relative circulation of silver and gold, 160

Money eliminated by improved order in business, 160

Banks and bankers are clearing-houses, 160

Supply and demand does not explain prices, 160

Increase of gold and silver, with increase of paper money besides, has not enhanced prices, 161

Nor will any enhancement of their product depress prices, 161

The precious metals and paper currency, vicarious, mutually, 161

Stability of value as between debtor and creditor to be secured, 162

Steadiness and gradualness in changes. Relative rise of land and labor, 162

BANKING, 163

Two kinds of banks. The earliest bank of discount and deposit, 163

Banks of discount and deposit, 164

The service of the banker, 164

Simple barter—its losses, 165

Amount of deposits in banks, 166

Savings banks and accommodation loans, 166

Bank advances, an anticipation of property returns, 166

Goldsmiths, the bankers of London in A. D. 1661, 167

Amount of deposits. The comptroller's data, 167

Vast deposits not officially reported, 168

Money otherwise idle, moves all our manufacturing enterprises, 168

Smith and Mill, errors in the function of money, 169

Analogy and differences between circulation of the blood and of money, 169

Panics and pressure their causes, 170

Credit money a better correspondent to exchanges than coins, 171

BANKS OF ISSUE, 171

Early banks and brokers, 171

Earliest bank of issue in A. D. 1658. None in effect before 18th century, 172

Bank of England notes of very limited circulation in 17th century, 172

The advances of civilization in the generation preceding the bank note, 172

Inventions arise out of conditions, 172

Bills of exchange—the Jews, 172

Bills of exchange different from the circulating note, 173

The banks of Venice, Barcelona, Genoa, earlier than that of Sweden, 173

Those were mainly fiscal agents of their governments, 174

Constitution of Bank of Venice, 174

Depreciation of coins, 174

Premium upon bank credits, 174

Standard of value, 175

The standard, a money of account, 175

In our clearing houses the medium is nearly all credit, 175

Indirect barter, 175

Barter relieved of a medium through set-off, 176

BANKS OF ISSU—

- Basis of the premiums in Bank of Venice credits, 176
- Depreciation of coins, 176
- In England in the 17th century, 176
- Debased coin the cause of bank establishments, 177
- Bank of Venice founded upon a forced loan, 177
- Our first national bank based upon the nation's debt, 177
- Washington and Hamilton on the basis of a national bank, 178
- Adam Smith's wagon-way through the air successfully realized, 178
- Adam Smith would have paper only a representative of metallic money, 179
- Authority upon opinion, 179
- The Bank of Genoa, 179
- "Pay as you go," 179
- Its cautious policy, 180
- Charter exemptions, 180
- Care of government over the circulation, 180
- Remissness of the Federal Government in relation to our paper currency, 181
- The national banking system has reclaimed and exercises the right, 181
- The Bank of Genoa did not furnish a *circulating* note, 181
- Inconvenience of our silver dollars, 182
- The precious metals, an indorser of the note, 182
- The Bank of Genoa extended its accommodations, 182
- A clearing house, 182
- The circulating note a deliverance from the coin nuisance, 182
- Large privileges conferred upon the bank, 182
- Inherent ills of coined money, 183
- Gold and paper during suspension, 183
- Contributors to the capital of the Bank of Venice like the British consols, 183
- The consols described, 184
- National loans sold at discount, 184
- English and American, 184
- The policy of such sales at a discount, 185
- Repudiation of national debts, 185
- Bank of Amsterdam, 186
- Holland's maritime commerce, 186
- Cromwell and Colbert followed by Louis XVI. and Charles II., 187

BANKS OF ISSUE—

- Faith in the existence of the substance serves as well as the facts, 187
- The bank sound in business though without capital for fifty years, 188
- Causes of its failure—the principal, that it did not make its loans transferable, 189
- Government debts, 189
- Traffic in national debts, the original subscribers not lenders, 190
- Government protected the currency which it authorized, 190
- The notes kept nearly at par by an interconvertible process, 190
- Flexibility of the currency, 191
- Dr. Rush's theory of the spleen, 191
- Usury, interest—money of account the only true measure, 191
- BANK OF HAMBURG, 192
- The new unit of value, the *marco banco*, premium upon, 192
- What is to be done for a standard? 192
- Spanish milled dollars in reserved rent, 193
- Instability of coin values, 193
- Banks without issue, useful in large cities, 194
- Their certificates of deposit not as serviceable as circulating notes, 194
- The modern system of banking traced, 194
- BANK OF ENGLAND, 194
- Depreciation of the coins, 194
- Agitation of the currency question, 194
- Mr. Colwell's "Ways and Means of Payment," Carey, 195
- General commendation of Colwell and Carey, 195
- English efforts to remedy the coinage nuisance until Elizabeth, 195
- Simple deposit banks not answering, 196
- Improvements must be forced by felt necessities, 196
- Speculations of every sort, 196
- Inspired projectors, 197
- The advantage of the after thought, 197
- Genius and experience, 197
- The bank charter of England smuggled into effect in disguise, 198
- The whole capital converted into national debt, 198
- The credit character of the bank's securities, not its mischiefs, 198

BANK OF ENGLAND—

- Substance of its capital, 198
 - The only joint stock bank for London from 1694 to 1834, 198
 - Condition of the bank in 1877, 199
 - Safe amount of reserve, 199
 - Wild changes of bank rates of interest, 199
 - Causes of fluctuating rates, 199
 - Money market and food market, 199
 - Eminent uses liable to great abuses, 201
 - Connection between Bank of England reserves and rates of interest, 201
 - Banking and issue departments—the charter, 202
 - Liabilities, 202
 - Suspensions of the bank, 203
 - A pinch or nip explained, 203
 - Cautionary signals frequent, 204
 - Business disasters resulting, 205
 - The Directors implicated in producing oppressive rates, 205
 - Profits under high rates, 205
 - Absurdity of the restriction in the charter, 206
 - A bank director's justification of plunder, 206
 - Instant convertibility the aim at whatever resulting mischief, 207
 - Other banks in the United Kingdom, 208
 - Banks of Scotland, 208
 - Varied American experience, 208
 - Failures of systems, 208
 - Failures of English and American banks compared, 209
 - Bank of the United States—failure, 209
 - Suspensions of Bank of England, 209
 - Different conditions of the two banks, 210
 - Recuperative power in human nature and business, 211
 - Discount upon our State bank currency, 211
 - Business disasters, 212
 - Mr. Chase's conditions of a sound paper currency, 212
- OUR NATIONAL BANKING SYSTEM—its securities like those of Bank of England, 212**
- Difference between the systems, 213
 - Redemption by the Treasury, and adjustment of the security to the issues, 213

CHARACTER AND QUALITIES OF NATIONAL

- BANK NOTES, 213**
- Protection of depositors, 213
- Danger from depositors, 214
- The Government not a party in the banking business, 214
- Intervention of Comptroller for benefit of creditors, 215
- Double liability of shareholders, 215
- Unlimited liability, inequitable, 215
- Impolicy of unlimited liability, 215
- "Limited liability" in joint stock corporations, 216
- Danger from deposits proportioned to their comparative amount to the notes, 216
- "Deposits" for the most part debts of the depositors, 216
- Depositors first in a run upon banks, 217
- Notorious danger of the old State bank system, 218
- Bad banking, revulsions in business, 218
- The attendant risks of credit, 219
- Adam Smith's limitation of paper money to the sum of its metallic base, 219
- Credit money represents the values in exchange, 220
- Popular opinion accords with Smith, 220
- The failure of this doctrine in the case of the Bank of England, 220
- Restricting issue in the first National Bank Act, repealed, 220
- National bank, adaptation of supply to demand, 221
- Bank of France totally abandoned the equivalent reserve policy, 221
- Bonnet's conversion in faith, 222
- A circulation without a metallic base, 222
- Smith's wagon-way, 222
- Bonnet on irredeemable currency, 222
- Discounting the future, all enterprise looks to its future, 223
- Time-honored experience inveterate, 223
- England in 1866 followed the example of France, maugre her orthodoxy, 223
- Obstinate adherence to precedents, 224
- The guidance of precedents, 224

NATIONAL BANK NOTES—

- History of the Bank of France under its great trial, 224
 - Strength of a bank measured by its cash reserve, 225
 - Government control of the Bank of France, 225
 - Silver in France—mitigation of forced legal tender in the United States and in France, 226
 - Desolation of France in 1870 described, 226
 - Steadiness of French financial management, 227
 - The bank's advances, 227
 - The bank under full sail in the tempest, 227
 - Vast increase of its circulation, diminution of reserve and its recovery, 227
 - The unfavorable balance of trade damaged the credit of the circulation, 228
 - The bank paid and received specie freely during its legal exemption, 228
 - Dividends and price of shares in 1876, 227
 - Financial prosperity of the French Government, 227
 - Macaulay on the national debt and resources of England, 228
 - Protection of national industries, 228
 - The national money sufficient when protected from "the money of the world," 229
 - A well guarded foreign trade relieves from the necessity of specie reserves, 229
 - Favorable balance of trade keeps banks safe without the basis of coin, 230
 - Theory and art *distinctly one*, 230
- THE CIRCULATING NOTE is the money of the public, its qualities, 230
- The service of the bank note in our Rebellion estimated, 231
 - Depreciation and recovery of our note circulation, 231
 - Unity of government. A multitudinous national bank, 232
 - Difference between coin and paper, and likeness, 232
 - The Treasury cannot be a money dealer as a bank of issue is, 232
 - Greenbacks and national bank notes, likeness and unlikeness, 232

THE CIRCULATING NOTE—

- Fiscal agency banks, difference of our national banks, 232
- The greenback policy would not dispense with local banks, 232
- Dangers of the substitution of heterogeneous banks, 233
- Discussion of the Greenbackers' plan declined for lack of information, 233
- The use of the banking system is in its convenience, 233
- Collocation of bank offices, 234
- Supervision of the banks, 234
- The freest and best ever devised in respect to distribution, 234
- Excellence of the Scotch system of banking, 234
- Scotch banks allow interest on deposits, land, or bonded securities; advantages of this policy, which would break other banks; they are effectively credit agencies, 234
- Small notes, no fear of driving out specie, 234
- Mutual care of each other by the people and the banks, 234
- Distribution and collocation of the Scotch banks, 234
- Distribution in our Northern States, 234
- Proportion of circulation to population in Scotland and in England, 235
- Colwell on Scotch banking system, 235
- Limitation of paper money to that of specie absurd, 235
- Provision of money not calculable, 236
- National banking system adjusts the provision to the need, 236
- In different localities, the requirement varies, 236
- California and Virginia in this respect, 236
- Money eliminated by clearing houses, 236
- England an example, 236
- Elasticity of the circulation required, 236
- A spiral spring, 237
- The national banks' adjustment to requirement, 237
- The national banks do not draw a double interest upon their deposited bonds by the use of the notes issued upon them, 237

THE CIRCULATING NOTE—

- Abatements of customary rates of interest, 238
 - Losses and expenses of the banks pro rata chargeable to the notes, 239
 - Premium upon, and declining value of the bonds, 239
 - Circulation of country and city banks contrasted, 240
 - Banks that refuse the notes, 240
 - Notes in inverse ratio to business of the banks, 240
 - Measure of wealth by proportion of fixed to floating capital, 241
 - Organization of business and eliminated money circulation, 241
 - Explanation of exceptions, 241
 - General conclusions, 241
 - Two and two do not always make four, 242
 - Caution in logic, 242
- INTERNATIONAL TRADE, 242
- Its glorification, 242
 - The history of international trade between civilized and savage nations, 242
 - George Thompson on the devastation of India, 243
 - Explanation of the mischief, 244
 - Character of trade until the beginning of the present century, 244
 - The rule of international commerce, 245
 - True *free* trade is *compulsory*, 245
 - True commerce grounded upon differences between the parties, 245
 - Commerce and trade, the difference, 245
 - True commerce, 245
 - Commerce of diverse climates, and of topographic differences, 246
 - Commercial exchanges, supplementary, 246
 - Substitutes for foreign products, 246
 - Free trade, resisting manufactures, commits itself for industrial home drudgery, 247
 - Manufactures and progress, 247
 - Protection relieves non-competing foreign products from taxation, 247
 - Tariff for revenue only, inflicts excises upon home products, 247
 - Tariff for revenue is *taxation* in intention and operation, 247
 - Countervailing duties, Clay and Webster, 247
 - Infant manufactures, 248

INTERNATIONAL TRADE—

- Clay and Webster were compromisers, 248
 - The tariff charged with class legislation, 248
 - Instances of class legislation, patent laws, etc., 248
 - Vagueness of the charge, 248
 - Lending money not a monopoly to the borrower, 249
 - Bonuses. Colbert, European bonuses, 249
 - Subsidies and gifts of public lands, 250
 - Justified by their diffusive benefits, 250
 - Not exactly protective, 250
 - Distributed benefit to the whole community takes a favor out of class legislation, 250
- PROTECTION is not *taxation*, 251
- Import duties not taxes, 251
 - Difference in four points—*ad valorem* alien to the principles of protection, 251
 - Not in essence revenue measures, 251
 - Blackstone's definition of taxes, 252
 - Protection by Noah Webster, 252
 - Duties have yielded usually nine-tenths of the revenue, 252
 - Similar effects from various agents, 252
 - The Zollverein purely protective, its rule and rates of charges, 252
 - Specific duties, 253
 - Policy of the Zollverein not for revenue, 253
 - Adaptation of the Zollverein to progressive improvement in production, 253
 - Triumphant results. The like history of every advancing nation, 253
 - Rule of taxation by assessed values, 254
 - Protection draws no insidious line between luxuries and necessities, 254
 - "Tariff for revenue" guilty in this respect, 254
 - Protection minds its own business, 254
 - Its free goods, 254
 - Foreign wools, 255
 - Domestic wool interests, 255
 - Economic wisdom as effective in national growth as its written constitution, 256
 - Fate of the nations ruled by their care of their industries, 256

PROTECTION—

Modes of defence, change with the change of conditions, 256
 England's change of method in change of relations, 256
 Interference with private freedom of avocations, 257
 Class legislation, inequality of taxation, and interference with personal liberty. Free trade abstractions, 257
 Fallacy of every man's competency to choose his lot in life, 257
 Impertinence in the question, 257
 Protection secures the *opportunities of choice* in business, 257
 Free domestic commerce and free foreign trade, 258
 "The world governed too much," 258
 Instances of necessary government interference, 258
 Exceptions to rules. The dodges of untruths, 258
 Distribution of benefits granted to first-hand beneficiaries, 258
 Laws granting special privileges, 259
 "The greatest good to the greatest number," a justification of the oppression of minorities, 259
 The hermaphrodite philosophy of democracy, 259
 Free trade, 259
 The most advanced minds, the most protruded only, 259
 Opprobrious epithets, the ammunition of free traders, 260
 Instances of their use by responsible authorities of the free trade party, 260
 Implied reproaches to Washington, Jefferson, Madison, and Hamilton, 260
 "That government is best which governs least," 261
 Double aspect of civil government, control and providence, 261
 "The devil's own government," 261
 The true creed of democracy, 261
 Always for prohibition, 261
 The requirements as well as the restraints of government, 262
 Diversities of avocations required, 262
 Census report of great diversity and number of pursuits, 262
 Provision for employment of women, 262

PROTECTION—

Household industries supplanted by modern machinery in factories, 263
 Hamilton's report of household manufactures in A. D. 1791, 263
 The courtesy of chivalry enslaves and debases women, 263
 Wages of women in factories in 1850, 1860, and 1870, 264
 Women's adaptation to the modern industries indicated, 264
 Kinds of labor in which they are employed in factories, 264
 Protection of their industries demanded, 264
 Idleness of women, their perdition, 264
 Formal enfranchisement only available with freedom of industry, 264
 Freedom to all capabilities in choice of occupation, 265
 Cosmopolitanism not within the province of national governments, 255
Laissez faire devolves self government upon its enemies, 265
 Self-government! 265
 Protection is patriotic, communism of nations is not, 266
 Incapacity of cosmopolitanism, 266
 National relations to it, 266
 Absurd and impracticable levelness of inherent diversities, 266
Laissez faire sustains all the rules of inequality, 267
 No outside rows to his corn-field, 267
 General Jackson a protectionist, his letter to Dr. Coleman, 267
 His doctrine of the diversity of industries, 268
 Fluctuations of the foreign wheat market, 268
 British free trade has made Englishmen dependent upon foreign supplies, 268
 Effects of broken balance of industries upon England, 268
 Future dependence a result. Our rivals in the food market of England, 268
 General Grant concurs with General Jackson, 269
 Home Market, 269
 Division and proportion of the industrial nations, subsisting, 269
 Proportion of producers of raw materials to manufacturers in England, 269

PROTECTION—

England dependent upon foreign markets for their manufactures, 269

England's industries on a see-saw, a metropolis of trade, 270

Her morning drum-beat, a host of huckster drummers, 270

Her circular hunt, 270

Every man's place kept open for him, 270

Abundant provision and thence equitable distribution, 271

HISTORY OF PROTECTION in England and the United States, 271

Not indifferent to practical results of theory, 272

Truths are dynamics, 272

British protection for more than five centuries, 272

Duties upon foreign bar-iron, 272

Repeal, 272

Rates of duty, 272

British protection not yet abandoned, 273

Protection in the United States, 273

Its stages, 273

Panics, bankruptcy, from 1834 to 1842, 274

Failure of national credit, 274

Van Buren groaned out of office, Washington's oracle, 275

Tariff of 1860, 275

Infant manufactures! 273

History of the baby, 275

Protection as a sick-nurse, 276

Protection in the last twenty years triumphant, 276

Import duties not taxes but answer the end, while "revenue" tariffs fail of *their* end, 276

Hostile interests account for its instability, 276

Southern hostility and foreign intrigue, 276

Bouncing Jack, 277

The British boast of perfectly free trade, statistical abstract, 277

British excises collected at the custom-house not protective, 277

British Countervailing duties are in all respects protective. 278

Fifty millions per annum of countervailing duties, 278

Free trade impracticable, 279

Meaning of the word *countervail*, 279

Protective duties are simply countervailing, 279

HISTORY OF PROTECTION—

Protective agitation revived in England—The *London Times*, 280

Free trade has overdone itself, 280

Relaxation of restrictive policy by France in 1860, 280

France retained 25 to 30 per cent. of protection in that treaty, 280

The United States require larger rates of duties than France, 281

The French reservations in that duty a model of protection, 281

Rates of French duty upon certain articles, 281

The treaty truly indicates the industrial capabilities of France, 281

Reflected effect of duties upon domestic prices, 282

The duty on pig-lead in 1845, and price after reduction of duty, 282

Interest of importers in reduction of duties, 282

The producer pays the duty, 282

The reduction due to native production, 283

Protection holds foreign imports down to a fixed maximum, 283

Why is England so industrious in pushing her free-trade theories upon us if she does not bear the duties imposed upon her exports, 284

When the foreigner has the monopoly the consumer pays the duty, 284

Home competition throws the duty on the importer, 284

Drawbacks in evidence that the producer pays the duty, 284

Countervailing duties have the same meaning, 285

Absolute prohibition so much more of the same thing, 285

Losses by protection are in *values* exclusively, 285

The loss in values essentially compensated, 285

Present compensation, 285

Other effects, 285

Growth of individual, promotes relative life, 285

Nationalism auxiliary to cosmopolitanism, 286

Protection regards the practical, 286

Expediency the rule, 286

Protection the route towards free trade, 286

HISTORY OF PROTECTION—

- Duties reflected upon domestic prices, 286
- David A. Wells's argument on pig iron and salt; his estimated reduction of price on four articles \$48,700,000, 287
- Amount of duty upon competing foreign products and rate, 287
- Product of American manufactures for the year 1859 and for 1867-68, 287
- The *argumentum ad hominem* absurdity, 288
- The economic consequence, tax only non-competing imports, 288
- Anti-cosmopolitan in operation, 288
- Ad valorem*s alien to the principle of protection, 289
- Their bad qualities and effects, 289
- Taxation as a policy or expediency, 289
- Ability and availability the customary rule, 290
- Taxation upon consumption impracticable. Inequality of burden, 290
- Inhumanity of taxation upon consumption, 290
- Protection kindly discriminates, 290
- Taxation on consumption ruthless, 290
- Tariffs for revenue only and for revenue with incidental protection badly mixed in principle, 290
- Always failed even for revenue, 290
- A tariff for revenue is a *tax*, for protection, *otherwise*, 291
- Tariffs for protection marked by great increase of foreign consumption, 291
- Prices have no arbitrary effect, 291
- Cost relative to means of purchase, 291
- Lincoln's truism concerning prices and payments, 292
- Apothegms not explanations, 292
- Protection prevents monopolies, 293
- General advantages of protective duties, 292
- Only annuitants and idlers injured by protection, 292
- Statistics prove that protection is favorable to foreign trade, 292

HISTORY OF PROTECTION—

- Buying and selling both greatly increased under protection, 293
- "If you do not buy you cannot sell" fails, 293
- Exemption of all non-competing imports, 293
- Modified meaning of free trade, 293
- The essence of government fully stated, 294
- Free trade not practicable in any conditions, 294
- The ordinary free trade doctrine is only free *foreign* trade, 294
- Foreign trade must be under the law of demand and supply, 295
- Values of imported to home productions are not more than as one in a hundred, 295
- The free-trade school manufactured a *science* to escape the *practical* truth, 295
- Gladstone did not estimate the welfare in his estimate of the wealth of England, 296
- Gladstone's troubles as Prime Minister, 296
- The practicability of protection in a popular government, 296
- The *ad hominem* argument with the Democrats, 297
- Protection has the present for demonstration and conviction, 297
- The prospective is the inspiration and impulse of all enterprise, 297
- Its instant operation by anticipation, 297
- Only Democrats doubt democracy, 297
- The late presidential election indicates the capacity of the people to understand a policy by its results, 298
- The felt incompetency of Parliament to arrange the details of a tariff, 298
- The English horror of *ad valorem*s, 298
- Appendix, 301
- Proportion of credit money to cash in banking, 301
- Interest felt in the inquiry in England and America, 303

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